

MASSACHUSETTS
AGRICULTURAL
EXPOSITION

AMERICAN BEE JOURNAL.

ESTABLISHED IN 1861 OLDEST BEE-PAPER IN AMERICA

DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS.

Publishes Weekly at 118 Michigan St.

GEORGE W. YORK, EDITOR.

\$1.00 a Year—Sample Copy Free.

38th Year.

CHICAGO, ILL., NOVEMBER 3, 1898.

No. 44.

CONTRIBUTED ARTICLES

Loose or Tight Bottom-Boards—The Union.

BY W. M. WHITNEY.

I have read Mr. C. P. Dadant's contribution on page 645, on the subject of tight and loose bottom-boards, purporting to be a criticism of something attributed to me in an item on page 544. While I would not presume to offer instruction or advice to any bee-keeper having the knowledge and experience which is well known to every novice in the business, who reads at all, that Mr. Dadant possesses, yet his article is based upon an assumption so far removed from the actual facts, that I feel constrained to defend myself by way of an explanation.

I made no issue between loose and tight bottom-boards,

lation in forming my judgment respecting the hive, entirely independent of the matter of construction of the bottom-board. Were it left to me to choose, and were it practicable to make a double-walled hive thus, it might be that a loose bottom would be selected, mainly because the hive, as Mr. Dadant suggests, might be more readily cleared of dead bees, as well as of any foreign matter; yet, there has not been the least difficulty during the four years of my bee-experience in cleaning my hives, without the trouble of transferring.

My hives are double-walled to the top of the brood-chamber, having the air-space filled with some light, dry, porous substance, and having the second story single wall of thin stuff, and protected by a gable cover having plenty of air-space. They are not more cumbersome to handle than the two-story Langstroth; in fact, I find no difficulty in handling them during swarming-time. Queens being all clipped, when a swarm emerges, the parent hive is removed on a sled, and an empty one placed on the old stand.

Several of my hives stand in the sun, without a particle of protection from its rays, and while these colonies are among the strongest in the apiary, there has been scarcely a day during the heat of the summer that they have shown the least uneasiness because of the heat, or manifested a desire to hang



Exhibits of E. Kretzmer and Douglas County, Nebr., in the Apiary Building at the Omaha Exposition.

but simply stated that the methods of ventilation described were not applicable to the hives I use; and that for out-of-door wintering and for manipulation, as I have learned to do, I preferred them to any other with which I have become acquainted. There are other factors that enter into the calcu-

out; which condition, I believe, is due to the fact that the inside hive-body is protected from the heat of the sun by the outer wall, and a circulation is kept up by ventilators in the gable of the covers.

In regard to removing frames from the brood-chamber, re-

ferred to by Mr. Dadant, I have to say that I am using, largely, thick top-bar frames, which are spaced quite closely in early spring—not more than a flush $1\frac{1}{4}$ inches—and the removal of one frame in a 10-frame hive adds $1\frac{1}{4}$ inch space to be distributed among the remaining frames, which makes simply a wide bee-space, but will not cause the bees to thicken the comb, as I said in my former statement, providing they have a prolific queen, and there is surplus room given in the story above if needed. At least this is my experience.

This, and a chaff hive, are used almost exclusively in northern Ohio for out-of-door wintering, and are universally liked. Mine are the only hives of the kind in this locality, and while the season has been an extremely unfavorable one—one of the poorest known in this part of Illinois—my bees have not only most bountifully supplied themselves with winter stores, but have given me nearly 700 pounds of surplus, about equally divided between extracted and comb honey, while a neighbor, about 80 rods from me, theoretically “way up” in bee-keeping, with more colonies than I have, but in another kind of hive, has secured less than 30 pounds of surplus. But he does not take the “old reliable” American Bee Journal.

But it matters not what kind of hive one uses: as I said before, the time and manner of manipulation has a wonderful effect upon results, and no person should attempt to keep bees who is walking about asleep.

UNITED STATES BEE-KEEPERS' UNION—A SUGGESTION.

One other matter, which perhaps may seem presumptuous in me to refer to, as I am not a member of the United States Bee-Keepers' Union is, What is the surest method of increasing its membership? It has occurred to me that, if all county associations were made branches of the United States Union, and were governed by its constitution, contributing to its maintenance by the payment of dues or assessments, and were represented at its conventions by delegates, as many other organizations are conducted and supported, it would soon become a wonderful power for good to the bee-keepers of the United States. This is simply a suggestion, perhaps impracticable.

Kankakee Co., Ill.



Introducing Virgin Queens to Nuclei.

On page 632, a Jamaica bee-keeper suggested that queen-breeders be requested to answer this question in the American Bee Journal:

“With what method of introducing virgin queens to nuclei are you the most successful? Also give the age of the queens.”

The following responses have been received up to this time:

In reply to the question for queen-breeders, I will say this is about as good a plan as I have ever tried:

I have my queens hatch in the West spiral cage. When the queen has been hatcht from one to 10 days, I roll in a piece of tissue or other paper sufficient “Good” candy to fill about one inch of the cage, and place the cage in the hive in such a way that the candy can't fall on the queen when nearly eaten out. By this plan the nucleus has been queenless 3 days or more. With this plan I have been very successful.

I might succeed better with the tobacco plan, but in the hand of a novice there would be danger of robbing; and then, I don't use tobacco, and of course don't allow my bees to indulge.

W. J. FOREHAND.

Lowndes Co., Ark.

I have been very successful in introducing virgin queens to nuclei as follows: I use the introducing-cage, consisting of a wire cage $\frac{3}{4} \times \frac{1}{2} \times 3\frac{1}{4}$ inches, and a tin cap $\frac{1}{2}$ of an inch long that just fits inside the open end of the cage. This cap has a $\frac{1}{4}$ -inch hole in the bottom, and is filled with candy that will take the bees about two days to eat out, when the queen will be liberated. The nucleus should be queenless at least a day before the virgin queen is caged, and if many days destroy the cells.

This method differs only from introducing laying queens in having the nucleus queenless a day or two while the laying queens are caged, as soon as the undesirable queen is removed.

I have used this cage successfully since 1883, and have introduced hundreds of virgin queens with little loss. I have no trouble introducing a queen a week old, but prefer one from 24 to 48 hours old.

JAMES F. WOOD.

Worcester Co., Mass.

I will here outline the method, or several methods, which I have used quite successfully during the past season, for introducing virgin queens. It is not possible to give in a nutshell all the little kinks and hooks that are necessary to the best of success, but these will soon be acquired by the practical apiarist.

One method with which I have been especially pleased is Dr. Miller's “pulled queen method,” as I call it. During the past season I have introduced somewhere around five or six hundred pulled queens, and have lost but very few when certain rules were observed. The rules are these:

The queens are not to be more than a few hours old, and the nucleus must be at least three days queenless. At all times, and when honey is not coming in very briskly, the nucleus should be queenless one or two days more, or the queen is liable to be balled as she grows older. It is a fact, the bees will accept one of these pulled queens when they have been queenless but a few hours, but the idea is not only to have them accept the queen, but to have the queen become a laying one. My experience says when the queen is given to the bees too soon they will invariably ball and kill her after the first two or three days.

For introducing virgin queens not more than three or four days old, I follow the same rules as for a laying queen. A colony that will accept a laying queen will accept a young virgin. To introduce a virgin 5 or 10 days old is quite another thing, and, to prove this for yourself, take a pulled queen and one of these oldish virgins and place them on the same comb at the same time, and you will find that the bees will promptly attack the older queen while the pulled queen will receive no attention whatever. To get the above results use bees which have been queenless for but three days.

To introduce these oldish virgin queens, I usually wait until the bees have capt queen-cells, then run a queen right in at the top of the hive. It is a good idea to roll her in-honey first. This work should be done in the evening, towards sundown.

Another plan for introducing these queens is to wait until the nucleus is queenless for three or four days, and then proceed to introduce as you would a laying queen to a colony that has been queenless for a few hours, or whose queen has been just removed.

All the above directions are for colonies or nuclei in a normal condition, except that they are queenless, of course.

Huron Co., Ohio.

H. G. QUITMAN.

CONVENTION PROCEEDINGS

UNITED STATES BEE-KEEPERS' UNION.

Report of the 29th Annual Convention Held at Omaha, Nebr., Sept. 13-15, 1898.

DR. A. B. MASON, SEC.

[Continued from page 675.]

FIRST DAY—EVENING SESSION.

The evening session was called to order by Pres. York, and opened with the singing of the “Bee-Keepers' Reunion Song.”

Pres. York—The first paper is one by Mr. E. R. Root, of Ohio, on

Recent Progress in Apiculture.

E. R. Root—I have no regularly prepared paper. Not having had the time to prepare one, I thought I would simply give you some of my old rehash. I want to say in this connection that I was in hopes I should not be put on the program for any paper. I was rather of the opinion that a publisher should not come before the convention to discuss a subject. We want to have an opportunity of hearing from those who do not so often have the opportunity of being heard from.

At the meeting held in Lincoln, Nebr., I had a subject very similar to this; but I suppose Dr. Mason thought that the times had changed so much that we could discuss the same subject again.

THE PLAIN SECTION AND FENCE.

Some of you know what we have been doing in reference to plain sections. I wish to explain what the plain section is: It is simply a section which has the sides made of the same width throughout; in other words, it is a section without bee-ways. We called it the "no-bee-way" section for a time. I saw those sections in use in New York State a year or so ago, when I was through it. They were getting more money for honey in those sections, and those who were using them were very enthusiastic concerning them.

In order to make the use of these sections practicable, we have put something in to take the place of the bee-ways. If separators are used, then the separators have to have cleats upon them. I have a section here that I have tried to make into the form of a plain section, and you can see that it is perfectly straight around the edges, with no bee-ways. I have here a fence to illustrate what I mean by the separator having cleats upon it. The fence is made something after this nature, with cleats on both sides $2\frac{1}{2}$ inch thick, or it may be $\frac{3}{4}$ inch thick. We put cleats on each side. That is supposed to be made up of slats placed about $3\frac{1}{16}$ inch apart. A series of these sections set down in the case, and then one of these fences, with cleats running down on either



Ernest R. Root.

side, is put in. The sides of the section come opposite the cleats on the separator. If you nail a piece of wood on either side you make a perfectly tight box of it.

In this way we get rid of about 25 percent of the wood in the sections—making the separator that is a little more expensive, and putting the cleat on the separator. We have overcome the difficulty of having such a large case. We save about 25 percent of the room in the shipping-case; yet the sections hold as much honey as they did before. We also have the honey closer to the face of the box. When the honey is put in, the capping appears almost even with the box, and the section itself seems to be fuller.

I found in New York State that these sections would sell better. This year we happened to send to a commission house in Columbus about 1,500 pounds of comb honey, and in that was a case of the plain sections. We thought nothing about it until we got a letter from them saying that they had that case of sections, and had taken it around to their customers, supposing they were all the same, had taken a great many orders, and that they were very much disappointed when they found they were not all alike; that they would like to get a thousand cases of plain sections, as they would sell more readily. You understand that they did not know anything about the plain sections; it was simply that they were better looking, and they wanted a thousand cases of them. That is one of the recent developments that came up for this year. The advantages are that there is less wood and less weight in the shipping-case; the surplus wood is put on the separator itself.

Dr. Miller—Was that case of plain sections you speak of, square or oblong sections?

E. R. Root—Square. If it had been sent with oblong sections we would not have known whether the advantage was in the shape or in the style of the section. It must have been the appearance of the section itself that made the difference. Mr. S. T. Pettit, of Canada, has something similar, and he finds that with this freer communication he gets better-filled sections. The object is to get the sections filled on the outside row—to get them as well filled as those on the inside row of the super. With the fence we attempt to accomplish that, and I think the honey is going to be whiter, too. I shall show in the next number of our Journal a photograph showing the honey in the ordinary plain section and also in the old style section, and you will note that that in the plain section is a good deal whiter.

Mr. Stillson—In regard to the shipment of those sections built on that style, is it necessary to put in a fence between the rows of sections in shipping?

E. R. Root—No, sir; we have had thousands of pounds shipped without anything between them whatever.

Mr. Stillson—About two weeks ago I saw a shipment of 2,000 pounds of honey, and about half of it was ruined by being shipped in that manner. When the cases were handled it broke the capping and ruined nearly the whole shipment.

E. R. Root—Was that in plain sections?

Mr. Stillson—Yes, sir.

E. R. Root—I have not found any cases where there was that trouble. The thickness of the cleats has quite a good deal to do with it. There is a possibility that it might in some instances do that. Did they put fences in the shipping-cases?

Mr. Stillson—No, sir; there was no separation whatever; it was just put in close together, and it masht down. It was just simply one mess of mush.

E. R. Root—I have been watching for things of that kind, but haven't found anything yet. If there is more than $2\frac{1}{2}$ inch of thickness, then I think there is almost sure to be the trouble you speak of.

Mr. Masters—Are the cases filled full of those sections?

E. R. Root—Yes, sir.

Mr. Masters—How do you get hold of the sections to get them out?

E. R. Root—Usually shipping-cases are made so that there is a "follower" in them at the back of the case. The cases are made so as to take several different sizes of sections. If there is any space left in the case it is taken up by means of the follower. Back of that, if there is any space, pieces of newspaper may be folded and placed to fill the space and act as a sort of cushion. The newspaper is rolled up and put down behind the follower in the shipping-case. That protects the honey from getting jammed.

Dr. Miller—Do you consider it necessary to have separators in shipping-cases?

E. R. Root—No. We thought at one time it was necessary; but now I do not think it is. They can be put in or not, as one sees fit.

Mr. Stillson—Have you ever used the plain sections with a fence or separator, shut tight both top and bottom, and a hole in the bottom of the section for the bees to enter?

E. R. Root—I never have; no, sir.

Mr. Stillson—I saw some a little while ago. It was a surprise to me, the manner in which they were filled. I had never seen them used until this year. They were filled clear down to the bottom, and every corner was filled all the way through. The auger-hole was filled and cap clear down.

Mr. Stillson exhibited some of the sections filled with honey, which showed the conditions he spoke of.

E. R. Root—Speaking about getting the sections full—the claim was made earlier in the season that the plain sections would be filled out better than the ordinary. So far as I have seen they are. I am inclined to think that the greatest point in that is to get the sheets of foundation large enough. It is very necessary to have the starters go clear across. I am told by Mr. Danzenbaker that that is the reason he gets his sections filled out so nicely. I have also been consulting with quite a number of others, and I find that the matter of having the foundation go clear out to the sides of the section does away with pop-holes.

Dr. Miller—Mr. Danzenbaker insists it is better not to have the foundation go clear to the bottom.

E. R. Root—I meant to say that the foundation does not go clear to the bottom, but clear to the sides.

Dr. Miller—Will you please tell us what you use where Mr. Pettit has his divider?

E. R. Root—We have a fence.

Dr. Miller—And of course you have a wedge in there.

E. R. Root—Yes, sir.

Mr. Masters—With a 1/6-inch bee-space?

E. R. Root—The wedge increases it, so it makes very nearly 1/4 inch.

Dr. Miller—Is it not possible to have both sides wedged?

E. R. Root—It would be possible, perhaps; only in the ordinary 8-frame hive there is not enough room for the rows of sections and the fences. The wedges are about as thin as they can be now.

Dr. Miller—Mr. Pettit's idea is to have the outside filled with bees. There is another point that just came to me that may be of some advantage—that point is this: With this extra number of bees, if Mr. Aspinwall's idea is correct, that swarming may be prevented, there may be some advantage in having the extra bees on the outside.

E. R. Root—The idea was to get the outside rows as nicely filled as the center. He does it by having a great number of bees on the outside.

Dr. Miller—Another advantage that I happened to learn is that of putting the wedges in along with the fence. I do not know yet whether I like the fences, but I do like that one point, that the wedge can be more easily put in with the fence than it can with the plain follower, and very much more easily pulled out.

THE DEEP CELL OR DRAWN FOUNDATION.

E. R. Root—I have here in my hand a piece of what we call drawn foundation. The base of natural comb is 3/1000 of an inch thick. We have got this down now so that it is pretty near the same thing. It is a very expensive article to make; it has to be made very slowly. The sample that we made last season had flat bases—flat bottoms, like the ordinary flat-bottomed foundation, but we found that the bees would take it, and in their effort to make the base natural would plug in a lot of wax in the corners. They would thicken the foundation and make it heavy. Sometimes in the rush of the season they would not do it. Then Mr. Weed went to work and made the bases natural, and that seemed to eliminate the trouble. Some seasons the bees will enter that immediately and draw it out into comb and fill it; and other seasons they will take the ordinary foundation as quickly as they will this.

Dr. Miller—In what seasons do they make the discrimination?

E. R. Root—If the honey-flow was coming in rapidly they would take the ordinary foundation as readily as they would this. If the honey was coming in slowly they would take the drawn foundation in preference.

The third stage that Mr. Weed is working on now is something in the nature of a cross between drawn foundation and common foundation. His idea is to make the foundation as thin as the bees make it, 3/1000-inch thick. That is about the thickness of the ordinary bee-journal paper. We want to approach that thickness as nearly as possible, because we learn that the bees very rarely thin the base of the foundation. Whatever surplus wax you put in there goes for naught. If the foundation can be made as thin as the bees make it, we have accomplished considerable. [Mr. Root then exhibited specimens of the foundation referred to.] The walls are made in this way to stiffen the foundation, and also to give the bees a surplus of wax. It can be made thus more rapidly, and can approximate in price the price of ordinary foundation. When we accomplish that it will be a long step in advance. If we can give the bees a little encouragement by deepening the walls of the foundation, it will often start them going.

I have here a specimen of foundation with very shallow walls. The foundation, while it might be sold for a little more per pound, would be cheaper per square foot, and it would be less liable to sag, because the walls would keep it from sagging. It is also an advantage in pulling the foundation off the rolls. In pulling ordinary foundation off of the rolls, it has a tendency to stretch it. This foundation pulls off much more easily.

This foundation runs about 12 feet to the pound. Ordinary foundation runs about 7 or 8 feet to the pound. You can see the saving there; it will be much cheaper. And I believe that to make foundation with deeper walls is going to induce the bees to go into it more readily than with ordinary foundation.

QUEEN-REARING—THE DOOLITTLE METHOD.

E. R. Root—I will now pass to the subject of queen-rearing. Nearly all queen-breeders are using the Doolittle method, or something like it. If you know what the Doolittle process of producing cell-cups is, you know it is simply to take a round piece of wood and dip it in wax several times until the wax comes off in the form of a queen-cell. A row of those is fastened on a stick, and that is put in the center of

a brood-frame; then the cells are grafted with larvae and filled with royal jelly—I should say the royal jelly is put in and then the larvae, and then the cells are put into a hive that is going to supersede the queen. The larvae are one or two days old. After the cell-cups are put on the stick and fastened to a brood-frame, it is put into the hive of a colony that is going to supersede the queen.

How do we know that they are going to supersede the queen? As we go through the apiary we find a colony that has an old queen and has some queen cells started. That indicates that the bees are probably going to supersede the queen. We destroy all cells in that hive and put in one of these Doolittle artificial cell cup frames. If it is left in there during the honey season the bees will fill it out; if it is not during the honey season we gradually feed until the cells are filled clear down. That seems like a great deal of work, but it is a very short process, and the result is far superior queens. Just a little while ago I went through the apiary and lookt at some of the "peanut" queens, and I was surprised to find how large and how prolific they were. It seems to me that they must be queens of long life. The thought is this, that queens that have been on a journey for a time are shorter-lived than those which one rears. Suppose that is true, does it not stand to reason that bee-keepers should learn the art of queen-rearing? A great deal depends on good queens. With a good queen you can get a good, strong colony.

Mr. Rauchfuss—Won't you be so kind as to explain the system of rearing queens when you produce extracted honey? There is a difference under the Doolittle plan.

E. R. Root—I do not know that I understand your question.

Mr. Rauchfuss—I mean the method of rearing queens when you are producing extracted honey. Instead of looking up colonies that are going to supersede their queens, we simply hang a couple frames of brood up above. That will make the bees start queen-cells on those two frames. After they have started those queen-cells then we are getting ready to have our cell-cups on hand and put them right on those frames, breaking out the cells that have been naturally started. In that way we get about six cells, on the average, out of the 12. We leave them in there until the proper time comes to take them out and put them in the cages. We put them on a strong colony until they are hatched; then go to work with your pocket-knife and cut a hole in the extracting-case or super, making a hole for the queen to go out and get mated. She will commence laying, and whenever we feel disposed to change the queen we can take out the queen-excluder and the new queen will go down; and finally the old queen will disappear. That is a very easy and convenient way of requeening your apiary. It is a very satisfactory and a very cheap way of rearing queens. It doesn't interfere with the work of the colony—they keep right on filling the frames.

E. R. Root—That is an adaptation of the Doolittle method. I was stating a few minutes ago that good, prolific queens are a very important thing. We want queens that can produce a large number of eggs and get a strong colony. Some of you know something about the methods by which swarming may be controlled. Some time ago I went through Mr. Cogshall's apiaries in New York. He has 13 apiaries. He does not keep men at the out-yards; he lets the swarms go. The neighbors said he lost about half of his bees there. I spoke to him about it, and he said he could produce bees at a cost of 50 cents a colony. Suppose he can do that and then produce big crops of honey; isn't there a better way by which he can keep those colonies? I have been misunderstood a great deal in regard to large colonies. At our out-yard we have no men at all. I take care of those bees myself, and I do not give them very much time, either. There is no one there at all to look after them, but when they are managed properly they have no swarms, or so few that it doesn't amount to anything. Those colonies are tiered up one and two stories high. We want queens that are going to fill those brood-chambers full of brood; there will often be 12 to 16 frames of brood. We have had a good many with 12 to 15 frames. We put on the super as the honey season draws on, the brood will hatch out, and the probabilities are they will fill the upper story with extracted honey, and that will be capt over; the comb honey super will also be filled out. I have had as many as two or three stories filled out on top of that. If they were to swarm out, the colony would be reduced and the whole thing left weak. Honey is low enough in its price. We should do something if we can to control the swarming propensities and keep the colonies strong and full. There are other methods by which swarming can be controlled, but that is the most practicable method. Mr. Dadant has very little swarming—I think about 2 percent; and sometimes he doesn't have even that. He gets more honey, and it is less trouble to manage

the bees than in the ordinary way. I don't say that all localities will stand such procedure, but in a good many localities it will work very nicely. I presented this method at the convention at Philadelphia about ten days ago, and a good many said they had tried it and had got good crops of honey when their neighbors didn't get any. The plan is simply to have large colonies, very large colonies.

Mr. Rauchfuss—Doesn't a good deal depend upon the strain of bees?

E. R. Root—We have a good many strains of bees; some imported, and a good many hybrids.

A. I. Root—Mrs. Acklin has had good success in rearing queens by the Doolittle method. We would like to hear what she has to say about it.

Mrs. Acklin—We have been rearing queens by the Doolittle method for four or five years; in fact, we have always reared our queens in that way ever since we commenced queen-rearing. I take a queen out of the colony and leave it three or four days, and then build a string of cups and put in. This summer one time I made a string of 17 cups, and 15 of them were accepted. Another time Mr. Root was up there, and then I think I made 14 cups and 13 of them were accepted. That is the way we have run all summer. I have been using the same colony all summer for rearing queens. We have put in fresh brood all the time, taking the frames of brood and larvae and putting them in some other colony until they are sealed over, and then putting them into the queen-rearing colony, and in that way we have kept the colony stocked with young bees. We have reared a good many queens in that way. We have just kept that colony rearing queens all the time. Some bee-keepers might not think it advisable to do that. We have had queen-cells half a finger length long. I agree with Mr. Root in saying that they are very prolific queens.

A. I. Root—Have you tried rearing queens above with the old queen left in the hive?

Mrs. Acklin—Not this summer—not for the last two seasons. I prefer to have them in the lower story, as I think it is more satisfactory.

A. I. Root—When I started the idea of queens for a dollar, how the bee-journals pitched into me and abused me! They bore down on me hard, some of them seeming to think I ought to be in the insane asylum. I almost felt guilty myself, they came down on me so hard. I began to think I had made a big blunder. We advertised the names of those who agreed to furnish untested queens for a dollar, and kept on until by and by people began to discover that dollar queens were not altogether "Cheap John," after all; and at some of the conventions people began to speak of the big crops of honey they had got with dollar queens. The end of my story is this: Our good friend W. Z. Hutchinson suggested in a recent journal that he didn't know but good queens could be reared for 25 cents. I haven't heard anybody abuse him at all.

Dr. Miller—Wasn't that virgin queens?

A. I. Root—I don't think it was. Queens used to sell for \$4 or \$5. Our advocating queens for a dollar rather spoiled the trade of those who had been getting high prices. I don't know but that was why we were abused. I remember some one said for my encouragement when I was getting it on every side: "Mr. Root, when you want to find the best apple-tree in an orchard, when there isn't an apple on it, look for the tree that has the most clubs lodged in the top." But I am glad that the "clubbing system" is not so much in style any more. We are getting a little more charity and a little more respect for each other. Now I hardly expect that good queens will be reared for 25 cents; but good queens can be reared cheaply. I wish Mr. Doolittle could be here to hear these expressions of approval. Our apiarists have shown me some of the finest queens I ever saw in my life that have been reared by that method. It is going to produce just as good queens as we ever got by any process, and a good deal cheaper than they were reared before.

Mr. Stillson—Before this thing of new ideas in the apiary is past entirely, I wish to say this: Out at the Exposition grounds you will find many of these very appliances that Mr. E. R. Root has been describing in his talk. You will have many object lessons there, and you can learn a great deal from them.

Dr. Miller—It may not be out of place to mention at least one of the principles that I think very largely controls this matter of rearing queens under certain circumstances, with the plan that Mr. Rauchfuss speaks of as being the better. That plan I believe can be applied also in the plan that Mr. Root gives. Here I think is the fact: If no eggs are being laid for brood, there seems to be a general impression on the part of the bees that there is something in the line of queenlessness. In many cases they will start to rearing queens,

especially if they have an old queen. This summer I had cases in which to put the brood into the second story, and in the first story I put the queen with some combs. The queen was shut off from the second story. I did that with six colonies. In two of the six colonies I found queen-cells started in the upper story, and eggs in them, showing their feeling of queenlessness. Even if there is a first-class laying queen below, the bees will go on and complete the queen-cells above. The more they are isolated the more in earnest they will be about completing the queen-cells. It is not necessary to have extracting-combs; you may take sections and put the cells in them, with your Doolittle cups. If you take two stories of brood and lay a cloth between them with no excluder, so the queen would not feel comfortable about going up above, the queen-cells will be started there. Wherever there is brood with no queen, there is where the queen cells would be started. One year I had a number of combs that I wanted to keep away from the moths, and I put three stories of those empty combs over a colony of bees. I thought perhaps the bees would not go up to take care of the upper story, and thought I would give them an inducement. I put a frame with brood in the fourth story—one story at the bottom holding the colony, then three stories with empty combs, and in the upper story one frame with brood. I left them a month or more, paying no attention to them at all, and then was surprised to find that there was a queen laying in the upper story. There was an opening in the hive, and the young queen had gone out and been fertilized, and had started business on her own account. There was an old colony down below, and the new colony above. Mr. Doolittle refers to that in his book. Whether he had thought of it before I do not know; but the incident, related, I think, in *Gleanings*, was the first reported case of a queen being reared in the same hive with an old queen. The point is this, that you want the bees to be separated enough from the old queen to feel that they have no queen.

BEES SWARMING OUT.

Mr. Masters—Why should a colony of bees swarm out when they have no queen-cells started? I have had that happen more than once, in cases where there were no queen-cells for three or four days.

Dr. Miller—They had no queen-cell for three or four days? Had you destroyed the cells?

Mr. Masters—No; they swarmed without having any queen-cells.

A. I. Root—Italians will do that.

Dr. Miller—When the swarm came was that the first time they had swarmed?

Mr. Masters—The first time.

Dr. Miller—There was no start toward queen-cells, at all?

Mr. Masters—No start toward queen-cells, at all.

Dr. Miller—Such cases have been reported. I have always been just a little skeptical as to whether in those cases the bees had not made some attempt to swarm and been thwarted in it.

Mr. Masters—I hadn't known of it. I didn't want them to swarm.

Dr. Miller—If bees start to swarm and are thwarted in it, the more they are thwarted the more in earnest they become in trying to swarm. I had one colony that wanted to swarm, and I took away two or three frames of brood and gave them foundation, so as to stop their inclination to swarm, but they swarmed again. Then I took away all their brood, and left them nothing but foundation. They put one queen-cell with an egg in it on the empty foundation—that was the only brood there was in the hive, and then they swarmed again and laid down on the ground in front of the hive (the queen was clipped), and they wouldn't go into the hive. They would swarm; they wouldn't be thwarted, and I gave it up. I can't explain it. Bees will do a hundred and one things that nobody can explain. One colony will do one thing and another colony will do another thing.

Mr. Masters—In this colony the hive was full of brood and eggs. There were several frames that were full of eggs and young larvae. There were about four frames that had cap brood, and the other four frames I should say had brood and eggs on one side. I never could see why they swarmed. When they swarmed I concluded I would open the hive and go in and destroy all the cells but one, but I couldn't find a cell. I went through it the next day and couldn't find a cell. I went through the hive on the fourth day and found quite a number of cells, and they reared two or three queens and swarmed twice more afterwards. They were black bees.

Mr. DeLong—I have had a number of colonies myself that would swarm under those circumstances, and I believe I have solved the problem of why they swarmed; and it was simply this: I think they just wanted to swarm. [Laughter.]

Dr. Mason—I have had a great many colonies swarm without making any preparation whatever for rearing queens. This year about 20 percent of my colonies swarmed. The first one was a strong, pure Italian colony that made no preparation whatever for rearing a queen. Dr. Miller speaks of workers laying eggs above. Mr. Taylor says the same, too, and that it is not a fertile egg that is laid above. I do not know how it happened, but I reared two queens in the second story when there was no queen there and no comb there that had had eggs in it. There were only those two eggs that I found in the upper story; they both reared queens.

Mrs. Acklin—We have had cases this summer of that kind, with no eggs in the hive at all.

Mr. Danzenbaker—People think that bees can't be controlled in swarming. I hold that the natural reason for their swarming is to increase. It is as natural for them to swarm as it is for a grape-vine to run, or for anything to increase. Can the swarming be controlled? I think we can do it. The way I have managed bees I have furnished the hives and taken all the honey they could store in a certain time, for the hives. I do not want swarms. I have managed 110 colonies, and have had only two swarms out of them, and I think those two swarmed because I did not quite keep up with them. I put on supers and got them to start work as quick as I could, gave them plenty of ventilation, and watched to see if they started queen-cells. As soon as I saw the cups with eggs in them I didn't wait any longer, but went to work to change the condition of the hive. I contend that a colony will not swarm without there is brood there—hatching brood and larvae—brood in all stages, and plenty of bees. I would leave one comb of brood and put in only starters in the brood-frames, and take the sections that were already on the hive, and that were half full, and shake off the bees that were there and put them to work on starters, and give them plenty of room. They don't swarm; no danger of it at all. Sometimes, if I had two colonies standing together I would double them up; sometimes I would make three into two, and take a super from one that was very strong and put it over one that was not so strong. In that way I have managed to control swarming. I have stacked three tiers over one hive, and after awhile take and shake the bees down in front of the hive—add bees to one hive or another, as many as I wanted. I have had them working two and three tiers high in the supers. I have had some correspondence with Mr. Mendleson, of California, who said he had supers built up 5, 6 or 7 high. I feel that I can safely control swarming.

Dr. Miller—Will you tell us what you think the advantages of that plan are over natural swarming?

Mr. Danzenbaker—When I have bees two miles away I don't want them to swarm. The old bees are the field-workers, and I didn't want them to swarm. I was to have all the honey they produced by May 20. I had 14 hives in one place, and from them I got 900 pounds of section honey. They didn't swarm. I didn't have anybody there to watch them at all. I knew by the condition of the hives that they hadn't swarmed. The queens were clipped; and I changed all those queens and gave them new, young queens.

Mr. Rauchfuss—Didn't you get considerable drone-comb?

Mr. Danzenbaker—No, sir. I advocate the idea that if you give the bees some drone-comb to start with that they have sense enough to know that they have enough. They want about 800 cubic inches for workers; they must have it. Give them one drone-comb to start, and they will hardly build any more. Drone-combs that have honey in them do just as well. I don't give full sheets of foundation in the brood-nests; the bees will bring it down.

E. R. Root—Isn't that method the same as Mr. Hutchinson's—that is, the idea of putting the bees on mere starters?

Mr. Danzenbaker—Yes, sir. I got the idea first from Mr. Hutchinson's book, "Advanced Bee-Culture." If you will take it and read it, and practice it, I think you will like it. I am more indebted to Mr. Hutchinson for that book than to any other source, and I succeed with it.

Dr. Mason—What do you do with brood-combs when you take them away?

Mr. Danzenbaker—I want to rear all the bees I can until the white honey-flow is ready. I swap and exchange from one hive to another until I get them all strong. Some will be stronger than others. The first one I discover starting queen-cells I take the brood away from it, making it weaker, and dividing it around. And I may say I never use an excluder unless I am going to catch a queen. I think I have found it makes a difference of 50 percent in comb honey to use an excluder, and I don't do it.

Dr. Mason—I believe it makes a difference of 50 percent in favor of extracted honey to use an excluder.

"Feeding Bees for Best Results" was the title of a paper

that was to have been presented by W. Z. Hutchinson; but the Secretary read a letter from Mr. Hutchinson, excusing himself from the preparation of his paper on account of sickness.

The convention then adjourned until 9:30 a.m. the next day—Sept. 14.

[Continued next week.]

QUESTIONS AND ANSWERS

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Weight of Bees and Comb in 10-Frame Hives.

What is the weight of the bees and comb in a 10-frame dovetail hive? I have empty hives I can weigh, but no combs. I wish to weigh my colonies now to see if they have the 30 pounds of honey.

S. C.

I don't know. I have at different times weighed combs, but I don't remember what they weighed, and I don't know that it would serve your purpose very well if I could tell you. When the honey is all eaten out of combs there's a big difference in their weight. Some will weigh four times as much as others and yet both be free of honey. A comb may owe its weight largely to the pollen that's in it. While that pollen is of much more value than most bee-keepers' suppose, it cannot take the place of honey for wintering, and bees will starve, leaving plenty of pollen in the hive. An old comb is much heavier than a new one. Taking all these things into consideration, it is not hard to see that two hives with their contents may weigh exactly the same, and yet one have enough honey for wintering while the other will allow the bees to starve.

Perhaps, however, I can help you out to some extent. Taking into account the possibility of old combs and much pollen; I hardly feel safe to have an 8-frame hive with its contents weigh less than about 50 pounds. If there is a little pollen in the hive and the combs are new, that will allow the bees more honey than they need, but it will not be wasted, and in the spring there seems a real advantage in having a good supply of honey. That means 50 pounds for hive, cover, bottom-board and all. A 10-frame hive should probably weigh somewhere from 55 to 60 pounds.

Feeding Bees for Winter, Etc.

1. In feeding bees which would you prefer, sugar or extracted honey, for the benefit of the bees?

2. Count the sugar at five cents a pound, at what price would it bring the honey to be about equal in price for feeding?

3. In this locality the mercury goes down to 36°, which is about the lowest. Would it make any difference in feeding sugar or honey in warm or cold climates? I mean for those who winter their bees in double-walled hives on the summer stands, well packed.

4. Will you describe the Hill's device? What is the length of the cross pieces, how far are they put apart, and are they straight pieces? What is the size of each piece? Do you recommend it, or have you something better?

5. Will a colony of bees winter as well on as many combs as they occupy, as they will if the hive is full of comb? Ought each hive to be full of combs and bees to winter well?

MICHIGAN.

ANSWERS.—1. If it's a question between sugar and honey of best quality stored by the bees sufficiently early in the season, I think I'd take the honey.

2. I think five pounds of sugar and two pounds of water will make a syrup about equal to honey for feeding. At five cents a pound for sugar that would make the syrup cost 3 4/7 cents a pound.

3. I don't know that there would be any difference.

4. I never used a Hill's device, and can only describe it from memory, so I'll not warrant an accurate description. Take four pieces of wood eight inches long, 3/4 inch wide, and 3/8 inch thick. Let them be sawed curving, say having the curve of the staves in a miniature barrel. Lay the four pieces on a table with the hollow side up, each piece 3 1/4 inches from its neighbor, and nail upon them a piece 12x3/4x3/4. Lay this

on top of the frames with the hollow side next the bees and put the quilt over it.

When using quilts, as I did years ago, the bees always built bur-combs enough over the combs to allow free passage without the Hill's device. Since using flat board covers, there is no need of anything of the kind, for there is a bee-space between the frames and cover.

5. If the bees occupy a certain number of combs, say six, there is no need of any more combs in the hive through the winter, unless it be to hold honey. But if the hive is large enough to hold more than six combs, it is better to have the empty space filled with something, or else shut off by a division-board. At one time it was recommended to take out some of the combs for winter. At present I think nearly every one leaves the same number of frames in winter as in summer, that is, 8 frames in an 8-frame hive, 10 frames in a 10-frame hive.

A Beginner's Questions.

I bought a colony of Italian bees in a 9-frame hive. They have done very well so far. I took out 60 sections of honey up to Aug. 8. So far I have found no queen-cells so I divided the bees, putting three frames and the queen in a new hive with four frames of foundation. They went to work at once.

1. Did I do right in dividing them?
2. Had I better put the two other frames in the new hive and feed them so that they can fill the frames?
3. Is a warm barn a good place to put bees for winter? They are in double-walled hives.
4. Are 80 sections, 15 pounds of extracted, and enough to winter on, good work for one colony?
5. Is it well to diminish the size of hive-entrances in winter?
6. Once in a while I see a bumble-bee enter the hive. Sometimes the bees interfere with it, and sometimes they allow it to enter. Will this be any harm to the bees? If so, how can I prevent it?

NEW YORK.

ANSWERS.—1. That depends on circumstances, the season, etc. If you were anxious for increase perhaps it was the best thing.

2. You should manage in some way to make sure they have enough stores for winter, if they have not made full provision themselves.

3. It is not generally considered a very good place. The trouble is that when a warm spell comes the bees don't get warmed up enough to fly before the warm spell is over.

4. Yes, indeed. Don't expect to average anything like that amount when you get to 50 or 100 colonies, or you may be sorely disappointed.

5. That depends on the size in summer. If you have the entrance as large as some do in summer, better bring it down to $\frac{1}{8}$ or $\frac{1}{4}$ inch the whole width of the hive.

6. Don't worry about the matter. The bumble-bee will get the worst of it.

Salt on Cellar Floor—Survival of Fittest.

1. Would you advise putting salt on the floor of the bee-cellar? If so, how much? It has a purifying effect on the air if sprinkled on a carpet in a room.

2. W. A. Varian says on page 564 that by uniting swarms the best queen survives. Now, what I want to know is this: When a colony swarms, can I cut out queen-cells and hatch them in a queen-nursery, *a la* Alley, and when they are hatch turn them all in together and give the survivor to the colony? If you read the article you will know better what I mean. You see I am trying to go Varian "one better."

WISCONSIN.

ANSWERS.—1. I wouldn't advise salt on cellar floor. If it is an earth floor, it will be muddy, and I don't know any good to sprinkle it on a board floor. I would rather use lime.

2. I'd rather not answer. Still, rather than to be sent to my seat in disgrace, I'll try to make some kind of an answer. Mr. Varian is on the right track. He is not entirely correct, however, in one respect. He thinks when two virgins or two laying queens get into the same hive by the uniting of the two colonies, the stronger and more active will survive in all cases, but if a virgin and a laying queen are thus thrown together, the laying queen will survive. In both of the cases mentioned he will probably find exceptions. If a strong colony should be united with a weak one having a stronger queen, the stronger queen might be killed, and there might be other exceptions with no apparent reason. With a laying and a virgin queen thrown together, the exceptions might be still more frequent.

If the laying queen should be pretty old, especially at the close or near the close of the harvest, she would stand a fair chance of being set aside for the younger one. Still the general rule will hold.

Yes, I'm inclined to think your plan would work all right, and you would have a more severe selection than by merely throwing two queens together. But it would be a good deal of trouble. Possibly you'd like to try the plan I follow, which I think does fairly well, and is little trouble. Instead of giving a single cell to a nucleus or a colony, I give four, five or more, if good cells are plenty (and my cells are always reared in strong colonies.) If the first one of these that emerges is allowed to go around and destroy all the rest in their cells, then there is little choice in the matter; but quite commonly a plurality of queens is allowed to emerge, and the survival of the fittest follows. Besides, if only a single cell is given, it too often happens that it may contain a dead larva, or one in some way defective.

Cellar-Wintering with Bottomless Hives.

I have run against a problem too thick for me to extract. My cellar is overrun with mice; they have holes running down from the outside of the walls, and when snow comes the field-mice flock to the premises and are a nuisance in spite of cats and traps. I have been searching my "A B C" and fail to find what I want. If I remove the bottom from the hive when putting the bees into the cellar, would the mice bother them? I could leave the bottoms on, and leave a large entrance open, but then the mice could get in if the bees allowed them to. I'd like to cellar them with no hive-bottoms if it were safe.

"IOWA JOE."

ANSWER.—I doubt if you can manage to leave the bottoms all off with plenty of mice in the cellar. Of course you might hang up the hives, but that would be much trouble. You might put them on benches or boards, having these resting on posts surmounted with reversed milk-pans, but that would also be troublesome. Perhaps you might like the plan I follow: The floors are on the hives, the entrance being 12x2 inches, and the entrance is closed by wire-cloth with meshes three to the inch. That allows plenty of room for bees to pass through, but keeps out mice.

Using this Year's Sections with Foundation Next Year—Supers on Hives in Winter.

1. I have five supers that are on the hives. The bees have glued the sections together and didn't work in them at all. There is foundation in them. Can I keep them as they come off, and put them on next year? The honey-flow has stopped.

2. When you use cushions or quilts, do you leave a super on in winter?

KANSAS.

ANSWERS.—1. That depends on the condition of the foundation. In some places, when foundation in sections is left in the care of the bees till very late in the season, they will put so much propolis on it that it is not fit to use again. If thus varnished over with propolis, you better not use it again, but if it looks nice and fresh, it will be all right to use it next season. Some bee-keepers make the mistake of leaving sections on all the season when bees are not storing anything. It may be all right to put sections on in advance of the white honey harvest, for you may not know exactly when it will begin, and it is better for the bees to have it a little in advance of their actual needs, but when you find that you are to have no surplus from the white honey harvest, don't leave the sections thinking they will be all ready for a later flow that may come in a few weeks, but take off all sections, and then if a later flow comes that you want to catch in the sections, put them on again.

2. Any way so there is room for the cushion. If the hive has a cover deep enough to contain the cushion, that's all that is necessary. If you use flat covers, then you must have a super, hive-body, or something of the kind to contain the cushion. But don't think of leaving on the hive over winter a super containing sections, if you intend using the sections again.

Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for \$1.25, or club it with the Bee Journal for a year—both together for only \$2.00.



GEORGE W. YORK, EDITOR.

PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY
 118 Michigan Street, CHICAGO, ILL.

[Entered at the Post-Office at Chicago as Second-Class Mail Matter.]

UNITED STATES BEE-KEEPERS' UNION

Organized to advance the pursuit of Apiculture; to promote the interests of bee keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

Membership Fee—\$1.00 per Annum.

EXECUTIVE COMMITTEE—Pres., George W. York; Vice-Pres., W. Z. Hutchinson; Secretary, Dr. A. B. Mason, Station B, Toledo, Ohio.
 BOARD OF DIRECTORS—E. R. Root; E. Whitecomb; E. T. Abbott; C. P. Dadant; W. Z. Hutchinson; Dr. C. C. Miller.
 GENERAL MANAGER AND TREASURER—Eugene Secor, Forest City, Iowa.

VOL. 38. NOVEMBER 3, 1898. NO. 44.



NOTE.—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound.

"Golden" Comb Honey Method.—Quite a number of our readers are asking for the first articles by Mr. J. A. Golden, describing his method of comb honey production, which were published in 1896. We were out of those numbers of the Bee Journal long ago, but we will republish the articles sometime during the winter—after Jan. 1.—in good time so they can be used by those who so desire, another season.

Newspaper Clippings referring to bees or honey we are always glad to get, even if we do not make use of them or acknowledge their receipt. Sometimes we find among them something that we can use in our columns. At any rate we will consider it a favor if our readers will be on the lookout for anything in their newspapers on the subject of bees or honey, and when found send us only the clipping, or a marked copy of the paper itself.

Six Great Premium Offers will be found on page 699 of this number. This month and next will be a good time to work for new subscribers, especially as we will throw in the Bee Journal for the last three months of this year to all new one-dollar subscribers for 1899. This will be a great help to those who work to get the new readers. When you tell them they will get the American Bee Journal every week for 15 months, and all for only \$1.00, they surely will accept. It ought to make soliciting for new readers very easy. That means 65 copies to the new subscriber for his dollar, and a choice of one of the six big premiums to you for your trouble.

"Discussion" is the subject of a discussion by F. L. Thompson in the October Bee-Keepers' Review, and he hopes the discussion may be continued by others. He doubts the moral right of an editor to cut off any discussion he pleases, as it may be cut off at a point which will give one disputant an unfair advantage over the other. He says a discussion may run into a dispute, and a dispute into personalities, and the farther it goes the more delicate the task of the conscientious editor to bring it to a close, hence he may wish to do so as soon as possible; and suggests that instead of stopping short the discussion, the editor might suggest private argument first of all, and then condense and combined last words.

It might be replied that private argument is still left to the controversialists, no matter when the discussion is stopped, and that it is somewhat doubtful whether last words can be so "combined" that neither one feels advantage is taken of him; and not very doubtful that the editor who shirks the responsibility of deciding when a discussion shall cease will have in his columns a good deal of matter that his readers will not patiently endure.

Editor Hutchinson says, "So long as the original subject is kept in view, and each 'round' brings out new facts and ideas, and argument takes the place of dispute and personalities, I see no reason for closing a discussion." Probably no one will disagree with him in that, always providing the facts and ideas brought out are worth the room they are to occupy.

Mr. Thompson says that the immediate cause of his Review article was our "shutting off a discussion" in the American Bee Journal some months ago—a discussion on evolution, in which he apparently wished to engage also.

We might say right here, whenever we think that to continue a discussion in this paper is simply to waste space and disgust our readers, we will very likely chop it off—that is, so long as we wield the "chopper" and pay for setting up the type. When some other chap has our job he can do as he pleases about this—just as we do.

You see, we are trying to run the American Bee Journal in the interest of all who wish to get practical information on bee-keeping—those who pay their money for that purpose; and if in so doing a few get offended at our way of doing things, they'll simply have to seek other channels in which to empty their useless discussions.

Reading the Bee-Papers.—Mr. R. C. Alkin, in his series of articles on "Experience and Its Lessons," in the Progressive Bee-Keeper, wrote this paragraph:

"Why will even men who take and read one or more of the journals, buy frame hives and then put bees in, and neither see that the combs are built so as to be movable, nor ever try to move them? I can understand why an intelligent and practical apiarist will use some hive or other appliance because he has come into possession of such, and is just doing the best he can until a proper time comes to make a change; but it seems almost past comprehension that intelligent people would buy hives and then simply disregard every feature of the hive that made it better than a box costing a few cents."

Mr. G. M. Doolittle, referring to this paragraph in the same number, commented as follows:

"Mr. A. I am skeptical regarding those whom you say read bee-journals and yet hive their bees without having an eye as to the proper spacing of the frames, or even putting starters in either the frames or sections; then cutting the honey-combs out of the sections and putting it in crocks, etc. The part I am skeptical about lies in the assertion you make that they take and read one or more bee-journals. They may take one or more bee-papers, and treat their bees as you say they do, but I have never yet seen the man who is interested enough to read up on bees who uses hives and sections as you say they do. Why, bless your old heart, you can tell a man or woman who reads the bee-paper from one who does not, before you have had conversation with them five minutes, for all of the

old fogylism has vanisht as soon as they read a little, and intelligent bee-culture is stamp on them at once.

"And yet there are those who have kept bees for years who are opposed to you and me trying to extend the circulation of our bee-literature for fear we may raise up a new crop of bee-keepers to increase the supply of honey on the market, thus ruining the prices through an over production. My word for it, no ruining of our markets by an over-production of intelligent bee-keepers. Just what our bee-keeping industry is curst with to-day, is an over-production of would-be bee-keepers, who are as ignorant of the first principles of bee-keeping as a pig is of history. Educate this class, and then they will know what a frame hive is for, and that honey stored in nice sections is of more value in those sections than it can possibly be cut out and stored in crocks.

"Don't get discouraged Mr. A., but keep right on agitating and educating until all of the old fogylism has become a thing of the past."

Mr. Doolittle never wrote truer words than the foregoing. What is needed is more intelligence on the part of those who keep bees—more information regarding the profitable management of bees. And the way to get a large share of it is to read the bee-papers, and then practice the methods and suggestions given.

Sloppy Apicultural Literature.—Editor Hutchinson, of the Bee-Keepers' Review, called for expressions of opinion on his "Department of Criticism," as conducted by Hon. R. L. Taylor. In the October issue a few of those sent in are publisht, all but one being unsigned. In one of the signatureless opinions we find these words:

"Apicultural literature is very sloppy and needing a tonic.....we need an antidote for the ——— slush."

Well, now that's too bad. We never would have thought that the Bee-Keepers' Review was "sloppy" or "slushy." But perhaps that particular critic doesn't consider the Review "apicultural literature." We had supposed all along that it was, and especially when we read the following advertising paragraph written by its editor:

"If you wish a bright, clean, clear-cut, sprightly, beautifully illustrated, go-ahead, up-to-date, really helpful, useful bee-journal, subscribe for the Bee-Keepers' Review."

Now, that sentence *might* be called "sloppy" with adjectives, but if "American Bee Journal" were substituted for "Bee-Keepers' Review" in it, we should say it was exactly right.

But then, we may be prejudiced in favor of our paper, even if it is thought to be "sloppy!"

Sealing Jelly-Glasses.—J. W. Bannehr, in Gleanings, says: "In putting covers on jelly-glasses last year, some of which did not fit perfectly tight, we dipt a small brush in melted beeswax, waxt the edge of the glass, and put the cover on at once. This makes it perfectly air-tight."

White Comb Honey Wanted.—We are in the market for best white comb honey put up in 12 or 24 pound single-tier shipping-cases. We would like it to run about 11 and 22 pounds, respectively. If you have what you think will suit us, please write, saying how much you have, and at what price you will deliver it in Chicago. Address, George W. York & Co., 118 Michigan St., Chicago, Ill.

Bee-Keeping for Beginners is the title of a 110-page book just out, from the pen of that expert bee-keeper of the South, Dr. J. P. H. Brown, of Georgia. It claims to be "a practical and condens treatise on the honey-bee, giving the best modes of management in order to secure the most profit." Price of the book, postpaid, 50 cents. Or, we will club it with the Bee Journal for one year—both together for \$1.40; or, we will mail it as a premium to any of our present subscribers for sending us one new subscriber to the Bee Journal for a year (at \$1.00), and 10 cents extra.

See "Bee-Keeper's Guide" offer on page 684.



DR. C. C. MILLER says in Gleanings: "A new kink I saw at Omaha was tumblers of jelly with a coating of paraffine on top to keep it from molding. Beeswax will answer the same purpose."

MESSRS. STRATTON & OSBORNE, of Erie, Pa., are now advertising in this journal their Dandy Green Bone Cutters. We are informed that they manufacture the most extended line of bone cutters now offered to the public. Their machines range in capacity from a few pounds to 200 pounds an hour. Write for their new illustrated catalog which contains prices, etc. Please say that you saw their name in the American Bee Journal, when writing them.

THE MASCOTTE INCUBATOR AND LUMBER CO., of Bedford, Ohio, who are the manufacturers of the Mascotte incubators and brooders, are seeking a share of the public patronage on this line of machinery. To that end they place their advertisement in this issue of the American Bee Journal. These people come to us well recommended; they guarantee their machines to work exactly as recommended or they will refund the purchase price of the machines. This seems a very fair proposition. Please say you saw their name and address in this journal, when writing them.

EDITOR HUTCHINSON, of the Bee-Keepers' Review, gives this paragraph in his October number:

"Bro. York gave me a warm welcome during the hour or two that I could stop while on my way home from the fairs. We went out and took dinner together at a restaurant, and he told me about the Omaha convention, and made me wish I had been there. In one thing he was disappointed, and that was in the number present. He thinks now that the best thing we can do is to meet when the G. A. R. folks have their annual encampment. We are then sure of low rates. Philadelphia will probably be the next place of meeting. The American Bee Journal is giving a very full report of the Omaha meeting."

HON. R. L. TAYLOR, the Bee-Keepers' Review critic—in replying to Mr. Moore's little pleasantry on page 596 of this paper, gives this equally witty paragraph:

"Tho I have no remembrance of criticising any one's rhetoric, he says that all will agree that my criticism of grammar and rhetoric are entirely out of place in a bee-paper; but he seems to be in a measure reconciled to it, for he says 'it is nice to understand Michigan rhetoric and know wherein it differs from that of the settled portions of the country.' I have a copy of an old Gazetteer which describes Michigan as lying largely under water the greater part of the year. Mr. Moore, no doubt, has drawn his geographical knowledge from some equally ancient source. I'll write some railroad office to have some modern literature sent him."

MR. J. P. LEES, of Florida, we mentioned some time ago as having met with great misfortune, losing his all. Since then we have received this letter from him:

STUART, Fla., Oct. 21, 1898.

DEAR FRIEND:—I wish to thank you most sincerely for your contribution toward my assistance. I also wish you to thank Messrs. Judd & Monson, of North Dakota, for \$2.00; and Blackburn Bros., of Iowa, for \$1.00. These are all the donations I have received through any of the bee-papers. The fire left me in a sad plight. I have not been able to get a house nor furniture yet of any kind, but by the help of God, and with good health, I hope to soon.

Thanking you again for your kindness, I am,

Yours respectfully,

J. P. LEES.

We hope there may be others that will, from their abundance, send something to Mr. Lees. If you can, do so at once, and thus help him "to get on his feet again."

Every Present Subscriber of the Bee Journal should be an agent for it, and get all other bee-keepers possible to subscribe for it. See 6 big offers on page 699.



Badly Discouraged.—L'Abelle et sa Culture relates that the season has been so discouraging that some bee-keepers are destroying their bees rather than to feed them. One man having 29 colonies saved two of them that were good and took up the rest. From the 27 murdered colonies he obtained 47 pounds of honey, all told! \$1.60 per colony invested for feed would have taken them through to another year with a chance of double that amount in one harvest.

Facing Comb Honey.—"Friend Doolittle thinks some of us, when we throw bricks at his honey-facing doctrines, do not take space enough in saying that he neither advises nor practices facing cases with sections of higher quality than the body of the case. Thought I made that clear enough at the outset; but, as a comrade desires it, I will cheerfully say so some more. Mr. Doolittle is an honest man, and acts accordingly—only in this particular case he doesn't talk accordingly. And having tried our best to reconstruct him in that one particular, we have to give reconstruction up in despair. Mind you, nothing herein contained shall admit, in the least degree, that the man who faces honey with higher grades has done other than a wicked act, as well as an unwise act."—E. E. Hasty, in Bee-Keepers' Review.

Large vs. Small Hive-Entrances.—Dr. Miller continues the controversy on this subject in Gleanings, G. M. Doolittle replying in the same number. The Doctor made tests with a thermometer to find out whether the heat was greater in the hive with a large or small entrance, but with no definite result, excepting to disprove the assertion of Mr. Doolittle that it was cooler in the hive than out, in a hot day.

Challenged to prove his assertion that bees can ventilate best with an entrance not more than $\frac{1}{2}$ inch deep, Mr. Doolittle replies: "I don't know that I can prove any such thing, consequently I am not going to try; but from the hours I have

lain beside hives with swinging bottom-boards and those with large entrances, and seen the lack of 'fanners' at work, unless those fanners were away up in the hive, I have formed the opinion that the fanners could do more effectual work at the $\frac{1}{2}$ inch entrance than they could where they had all outdoors to send a 'current of air through.'"

The two men fail to come to any agreement as to what is Nature's plan for the queen to follow in laying eggs. Dr. Miller says: "It's Nature's plan to lay the first eggs of the season in the center, and it's just as much her plan to lay the next further out, and then further still as the brood-nest increases in size." But Mr. Doolittle insists that Nature tells the queen to lay her eggs in the center, "and when it comes about, by an expansion of the brood, that just the right thing cannot be done, then do just as nearly right as circumstances will allow."

Northern Michigan has been much spoken of as an El Dorado for bee-keepers. Byron Walker has been there for six years, and in the Bee-Keepers' Review he gives the advantages and disadvantages of that region, premising that the advantages have been set forth heretofore in rather glowing colors. He left Southern Michigan because altho he got good crops the character of the honey in his particular locality was such that $\frac{1}{2}$ of his colonies were lost in wintering. One advantage in the North is the great variety of flora, extending in the most favorable locations and seasons from early in May till late in September. Wild red-raspberry exists in large areas, yielding with certainty for three weeks a fine amber honey. Basswood, not so reliable, has yielded two out of six seasons. Willow-herb gives a superb white honey the chief part of a month. In best locations it yields three out of six seasons. Last season it failed in most locations. A fair yield from fall flowers three seasons out of six.

A disadvantage is that the best locations near towns and schools are taken up. To get much from willow-herb, the forests must be burned every two or three years, a thing that cannot be depended on, and when the fires do come they're likely to destroy the raspberry. Roads are sandy, stony, and hilly to get around to out-yards. He has 500 colonies in nine different yards, mostly in care of men who have a share, but conscientious, competent men are hard to find. Cool nights and cold winds are a drawback.

BEST EXTRACTED HONEY FOR SALE

ALL IN 60-POUND TIN CANS.

ALFALFA HONEY

This is the famous white extracted honey gathered in the great Alfalfa regions of the Central West. It is a splendid honey, and nearly everybody who cares to eat honey at all can't get enough of the Alfalfa extracted.



BASSWOOD HONEY

This is the well-known light-colored honey gathered from the rich, nectar-laden basswood blossoms in Wisconsin. It has a stronger flavor than Alfalfa, and is greatly preferred by those who like a distinct flavor in their honey.

PRICES OF EITHER ALFALFA OR BASSWOOD HONEY:

A sample of either, by mail, 8 cents; samples of both, 15 cents—to pay for package and postage. By freight—One 60-pound can, 8 cents a pound; 2 cans, $7\frac{1}{4}$ cents per pound; 4 or more cans, $7\frac{1}{2}$ cents per pound. Cash must accompany each order. If ordering two or more cans you can have half of each kind of honey, if you so desire. This honey is all

Absolutely Pure Bees' Honey.....

the finest of their kinds produced in this country.



We would suggest that those bee-keepers who did not produce any honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere. The pamphlet, "HONEY AS FOOD," will be a great help in creating customers for honey. See prices on another page.

GEORGE W. YORK & CO.,

118 Michigan St., CHICAGO, ILL.

To Our Regular Subscribers—Now for New Readers!

6 Great 50-cent Offers—Each One Free!!

On this page you will find six splendid premium offers, and we will mail your choice of any one of them for sending us \$1.00 for **just one New subscriber** for 1899—and we will throw in the last three months of this year's Bee Journal free besides to each new subscriber you send on these offers. That makes 15 months of the Bee Journal to the new subscriber. Or, for sending us **4 New subscribers**, as above, we will mail the sender all of the 6 great 50-cent offers.

JUST READ WHAT THEY ARE:

Offer No. 1.—Samantha at Saratoga.

100,000 Sold at \$2.50 per copy.

This is indeed a feast of fun, by the only peer of Mark Twain's humor—**JOSIAH ALLEN'S WIFE** (Marietta Holley.)

Read this Extract from the Book:

And right here, let me insert this one word of wisdom for the special comfort of my sect, and yet it is one that may well be laid to heart by the more opposite one: If your pardner gets restless and oneasy and middlin' cross, as pardners will be anon, or even oftener—start them off on a tower. A tower will in 9 cases out of 10 lift 'em out of their oneasiness, their restlessness and their crossness.

Why I have known a short tower to Slab City or Loontown act like a charm on my pardner, when crossness wuz in his mean and snappishness wuz present with him. I have known him to set off with the mean of a lion and come back with the liniment of a lamb.

And jest the prospect of a tower ahead is a great help to a woman in rulin' and keepin' a pardner straight. Somehow jest the thought of a tower sort of lifts him up in mind, and happyfys him, and makes him easier to quell, and pardners must be quelled at times, else there would be no livin' with 'em.

She takes off FOLLIES, FLIRTATIONS, LOW-NECKED DRESSING, DUDES, PUG DOGS, TOBOGGANING, ETC.

Opinions of Noted Critics:

"Exceedingly amusing."—Rose E. Cleveland. "Delicious Humor."—Will Carleton. "So ex-cruciatingly funny, we had to sit back and laugh until the tears came."—Wittens. "Unquestionably her best."—Detroit Free Press. "Bitterest satire, coated with the sweetest of exhilarating fun."—Bishop Newman.

Nicely bound in paper, fully illustrated, printed from new type and on fine paper. 370 pages. Postpaid, 50 cents.

Offer No. 2.—New Waldorf Cook-Book.

Over 1,000 of the very best up-to-date recipes for every conceivable variety required in the kitchen and other departments of house-keeping, by **Mrs. Anne Clarke**, the distinguished student and instructor in culinary science, assisted by many of the most successful house-keepers in various parts of Europe and America. It gives the latest and best methods for economy and luxury at home. Just the book for the housewife or daughter. Has had an enormous sale at \$2.00 a copy. 380 pages; paper bound; postpaid, 50 cents.

Offer No. 3.—Cattle, Sheep and Swine Book.

Fully Illustrated—300,000 sold at \$3.00 a copy.

This great work gives all the information concerning the various Breeds and their Characteristics, Breaking, Training, Sheltering, Buying, Selling, Profitable Use, and General Care; embracing all the Diseases to which they are subject—the Causes, How to Know and What to Do given in plain, simple language, but scientifically correct; and with Directions that are Easily Understood, Easily Applied, and Remedies that are within the Reach of the People; giving also the Most Approved and Humane Methods for the Care of Stock, the Prevention of Disease, and Restoration to Health. Written by Dr. Manning.

Every farmer wants this great book. 390 pages, paper bound. Postpaid, 50 cents.

Offer No. 4.—Gleason's Horse-Book.

By Prof. Oscar R. Gleason.

This is the only complete and authorized work by America's king of horse-trainers, renowned throughout America and recognized by the United States Government as the most expert and successful horseman of the age. The whole work comprising His-

tory, Breeding, Training, Breaking, Buying, Feeding, Grooming, Shoeing, Doctoring, Telling Age, and General Care of the Horse. You will know all about a horse after you have read it. No one can fool you on the age of a horse when you have this book. 416 pages, bound in paper, with 173 striking illustrations produced under the direction of the United States Government Veterinary Surgeon. In this book Prof. Gleason has given to the world for the first time his most wonderful methods of training and treating horses. 100,000 sold at \$3.00 each. Our price, postpaid, 50 cents.

Offer No. 5.—Music, \$5 for 50 cents.

Four pieces New Sheet Music, which sell at music stores at 50 cents each—\$2.00; Three years' membership in the World's Musical Association (regular price \$1.00 a year), \$3.00. Total, \$5.00. We offer the whole thing at 50 cents.

The four new pieces of sheet music are the very latest hits of this year; are regular sheet music size and quality, but the title pages are a new style of art, viz: Illuminated Chromatic designs in five brilliant colors.

THE SONG TITLES ARE:

"Do Your Honey Do," by **THEO. METZ**, author of "A Hot time in the Old Town To-night." This latter piece, said to be his best, is creating a great stir, and becoming immensely popular everywhere.

"Queen of the Bicycle Girls," by the celebrated composer, **OTTO LANGEY**, by far the most charming Bicycle Song yet issued.

"Blossoms from Over the Sea," by the distinguished composer, **J. P. SKELLY**, a very beautiful Sentimental Song.

"He's Just Like All the Men," by the renowned composer, **EASTBURN**. Wonderfully pleasing to the Ladies.

The World's Musical Association is an organization having special advantageous relations with the leading music publishers of this country and Europe, and being an enormous purchaser, it is enabled to supply to its members (and will do so) any music desired (at any time within the term of their membership), at such wholesale prices as are usually granted only to very large dealers.

Offer No. 6.—The Poultry-Keeper Illustrators.

The four "Poultry-Keeper Illustrators" are the greatest books on poultry subjects ever issued, and are a veritable poultry dictionary, covering the ground so completely that, having these four books, one needs scarcely anything more except "grit" to become a successful poultry-raiser. You cannot get such other books in the whole world, not even for \$50 each, for they do not exist. Were they given in another form and elaborate binding and colored cuts you might think them easily worth \$5 each, but what you want is not elegant printing, and in these we give you the value in information that you can make use of. They have cost much in labor and cash, but you get all this value for almost nothing. We mail the 4 Illustrators for 50 cents.

Illustrator No. 1.—Poultry Houses, Incubators, Brooders, Coops, etc., 25 cents.

Illustrator No. 2.—Artificial Incubation, Raising Chicks, Testing Eggs, etc., 25 cents.

Illustrator No. 3.—Poultry Diseases, Lice, Grapes, Moulting, Egg Eating, etc., 25 cents.

Illustrator No. 4.—Judging Fowls, Description of Breeds, Mating, etc., 25 cents.

Those offers ought to bring us in at least 2,000 new readers during this month and next. You could send in your own renewal for 1899 at the same time you send in a new subscriber, if you wish. If you do, you can select any one of the above offers free for yourself, provided you send at least **two New subscribers** at the same time. That would give you your choice of **three** of the offers—by sending your own renewal for 1899, and two new subscribers (\$3.00 in all).

Address, **GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.**

BEES, HONEY, MONEY

Queens for Business.
Supplies at Bottom Prices.

"Bee-Keeping for Beginners," price 50 cents, imparts the instruction. Price-List free.

J. P. H. BROWN, Augusta, Ga.

Please mention Bee Journal when writing.



HATCH CHICKENS
BY STEAM—with the simple, perfect, self-regulating EXCELSIOR INCUBATOR. Thousands in successful operation. Lowest priced 1st-class hatcher made. GEO. H. STAHL, 114 to 122 S. 6th St., Quincy, Ill.

Circulars free. Send 6c. for illus. Catalog.

44A26t Please mention the Bee Journal.

COMB FOUNDATION Wholesale and Retail.

Working Wax into Foundation for CASH A Specialty.

Hives, Sections, and a full line of Supplies. The best of everything. Write for Catalog, with prices, and samples of Foundation and Sections.

BEESWAX always wanted for cash or trade.

GUS DITTMER,

AUGUSTA, WIS.

Please mention Bee Journal when writing.



ANYONE INTERESTED


in Agricultural Pursuits can't afford to be without the

AGRICULTURAL EPITOMIST.

Sample copy Free to any address upon receipt of name and address plainly written on postal card naming paper in which you saw this ad.

Address AGRICULTURAL EPITOMIST, Indianapolis, Ind.

26E26t Please mention the Bee Journal.



KEYSTONE DEHORNING CLIPPERS
The Quiet, Orderly, Gentle and Safe animal is the one that has been dehorned. It means animal comfort and that means animal profit. This knife cuts clean, no crushing or bruising. It is quick, causes least pain. Strong and lasting. Fully warranted. Highest awards World's Fair. Send for free circulars and prices before buying. A. C. BROSIUS, Cochranville, Pa.

38E6t Please mention the Bee Journal.



Buy Your Sections Now

while we offer them at a **LARGE DISCOUNT**, having added to our plant one of the most complete one-piece section machines, enabling us to turn out the most beautiful sections on the market. By sending us a list of Supplies wanted we can save you \$\$\$ **R. H. SCHMIDT & CO.,** Box 187, SHEBOYGAN, WIS.

Please mention Bee Journal when writing.



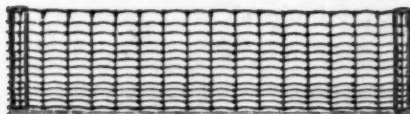
JUST AS NATURAL

as the old hen and a good deal more reliable. Doesn't break its eggs or make its chicks lousy. Doesn't stay off the nest and allow the eggs to chill but hatches every egg that can be hatched.

THE PETALUMA INCUBATOR

is absolutely perfect as to incubator essentials—proper application and distribution of heat and moisture, regulation and ventilation. For 50 to 350 eggs. WE PAY FREIGHT ANYWHERE in the U. S. Handsome catalog free. Petaluma Incubator Co., Box 2, Petaluma, Cal.

Please mention Bee Journal when writing.



Don't Shovel Snow

all winter from the lane, but buy Pace Fence and have a clear track. No drifts behind our Winter Styles. Ask for prices.

Pace Woven Wire Fence Co., Adrian, Mich.

Please mention Bee Journal when writing.

GENERAL ITEMS

Good Place for Bee-Keeping.

I am a new bee-keeper, starting four years ago with one weak colony, and now I have 12. They are the little brown bees. I am going to Italianize them in the spring. Bees do very well here. This is a fruit country, the land being cut up into 10 acre tracts. There is lots of fruit, alfalfa and sweet clover for the bees to work on.

G. W. WHARTON.

Umatilla Co., Oreg., Oct. 16.

Bees Did Fairly Well.

Bees have done fairly well in this section of the country. We did not get very much surplus from white clover, as there was not much clover the past season. We had no swarms to amount to anything. We had a good flow in July and August, and there was considerable surplus taken. Aster was a failure this fall. Bees are in fair condition for wintering. There is plenty of white clover for next season. J. L. ODEN.

Rutherford Co., Tenn., Oct. 17.

Bees on a Limb.

A man came to me Oct. 18, and said he had found some bees that had built their nest on the limb of a tree. I took my box and bee-kit, and went with him. Sure enough, there was a fairly good colony of bees with several combs of white honey, and more or less brood. Inside of two hours the man had the honey, and I the bees in a hive where there is plenty of honey to winter them.

This is the third colony of bees I have found under similar circumstances. Of course the bees could not have continued their existence long in such a place. The combs were so built that they shed all the rain, but when zero weather struck them the bees would soon perish.

HENRY ALLEY.

Essex Co., Mass., Oct. 19.

Smoker Fuel—Purifying Wax.

Tell the readers of the Bee Journal if they mix some of the refuse of the wax extractor with their rotten wood for smoker fuel, I think they will be able to kick up a fog that will surprise the crossiest bees they have.

I saw an article in the Bee Journal on purifying wax with the solar extractor. Did any one ever try to have a little dam across the lower edge of the comb-basket or pan, so as to retain a portion of the melted wax? The impure is at the bottom—the best is running off at the top.

C. A. HUFF.

Lenawee Co., Mich., Oct. 17.

Did Well for an Off Year.

My bees did very well for an off year like this. The white clover bloom didn't seem to have much if any honey, and the linden seemed to yield honey only a week or so; but the bees made good use of the time it lasted. This is good proof that one strong colony is worth a dozen weak ones. I keep my hives as full of bees as I can, summer and winter.

JOSEPH HENTRICH.

Grant Co., Wis., Oct. 22.

An Enthusiastic Beginner.

About a year ago I became acquainted with the old stand-by—the American Bee Journal—and almost immediately took the bee-fever, and am now an ardent devotee of the honey-bee.

Last fall I purchased 47 colonies of hybrids in common box-hives, and undertook to transfer them to dovetailed hives, and

You Can Learn Shorthand at Home

by our perfected method of giving lessons by mail. Easiest, simplest system. Send stamp for particulars.

Eclectic Shorthand College,

94 Dearborn Street, CHICAGO.

39Ayl D. F. HAYMES, Manager.

Please mention Bee Journal when writing.

The American Poultry Journal,

325 DEARBORN ST.,

CHICAGO, ILL.

A Journal that is over a quarter of a century old and is still growing must possess intrinsic merit of its own, and its field must be a valuable one.

Such is the American Poultry Journal. 50 cents a year.

Please mention Bee Journal when writing.

Farm Bee-Keeping.

The only bee-paper in the United States edited exclusively in the interest of the farmer bee-keeper and the beginner is **THE BUSY BEE**, published by—

Emerson T. Abbott, St. Joseph, Mo.

Write for FREE SAMPLE COPY NOW.

Please mention Bee Journal when writing.

Barnes' Foot-Power Machinery.



Read what J. I. PARENT, of CHARLTON, N. Y., says: "We cut with one of your Combined Machines, last winter 50 chaff hives with 7-in. cap, 100 honey-racks, 500 broad frames, 2,000 honey-boxes and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make and we expect to do it with this saw. It will do all you say it will. Catalogue and Price-List

Free. Address, W. F. & JOHN BARNES, 45Ct No. 995 Ruby St., Rockford, Ill.

Please mention Bee Journal when writing.

The RURAL CALIFORNIAN

Tells all about Bees in California.

The Yields and Price of Honey; the Pasture and Nectar - Producing Plants; the Bee-Ranches and how they are conducted. In fact the entire field is fully covered by and expert bee-man. Besides this, the paper also tells you all about California Agriculture and Horticulture. \$1.00 per year; Six Months, 50 cents. Sample Copies 10 cents.

THE RURAL CALIFORNIAN, 218 N. Main St., LOS ANGELES, CALIF.

Please mention Bee Journal when writing.



Queen-Clipping Device Free

The Monette Queen-Clipping device is a fine thing for use in catching and clipping queens' wings. We mail it for 25 cents; or will send it FREE as a premium for sending us ONE NEW subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device.

GEO. W. YORK & CO, 118 Mich. St., Chicago.

The A. I. Root Co.'s Goods Wholesale and Retail.

Including their discounts for Goods wanted for use another season. It will pay you to send me list of Goods wanted. **M. H. HUNT** Cash for Beeswax. BELL BRANCH, MICH.

Please mention Bee Journal when writing.

26c Cash Paid for Beeswax.

This is a good time to send in your Beeswax. We are paying **26 cents a pound — CASH** — upon its receipt. Now, if you want the money **PROMPTLY**, send us your Beeswax. Impure wax not taken at any price. Address as follows, very plainly,

GEORGE W. YORK & CO.,
118 Michigan Street, CHICAGO, ILL.



"THEY CAN'T BE BEAT." At any rate they have never suffered defeat in all the numerous tests, trials and competitions with the many machines of the same class. **RELIABLE INCUBATORS AND BROODERS** stand for the highest value known to the incubator art. It takes a book of 228 pages to tell all about them and our large pure-bred poultry plant, poultry supplies, etc. Sent on receipt of 10c in stamps. **RELIABLE INCUBATOR and BROODER Co. Box B 2, Quincy, Ill.** Please mention Bee Journal when writing.



Page & Lyon Mfg. Co. New London, Wisconsin.

Operates two sawmills that cut, annually, eight million feet of lumber, thus securing the best lumber at the lowest price for the manufacture of

Bee-Keepers' Supplies.

They have also one **One of the Largest Factories** and the latest and most-improved machinery for the manufacture of

Bee-Hives, Sections, Etc.,

that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polished on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equip't with best machinery, all combine to enable this firm to furnish the

Best Goods at the Lowest Prices.

Send for Circular and see the Prices on a Full Line of Supplies. Please mention the American Bee Journal.

7Atf

We want

EVERY BEE-KEEPER

.....To have a copy of.....

Our 1898 Catalog

Send us your name and address and we will take pleasure in mailing you a copy!

G. B. LEWIS CO., WATERTOWN, WIS.

Special Agent for the Southwest—

E. T. ABBOTT, St. Joseph, Mo.

Mr. Abbott sells our Hives and Sections at factory prices.

Please mention Bee Journal when writing.



Ho, for Omaha!

As we have many customers in the Northwest, and believing they will appreciate the low freight rates obtained by purchasing goods from a railroad center nearer to them than we are, getting a direct through-freight rate, thus cutting the freight in half, we have established a branch house at 1730 South 13th St., Omaha, Neb., where we will keep a complete line of all Apian Supplies, the same as we do at Higginsville, Mo. With the quality of our goods, we believe most bee-keepers in the West are already acquainted, but to those who are not, we will say that our goods are par excellent. Polished, snowy-white sections, beautiful straw-colored transparent Foundation, Improved Smokers and Honey Extractors, and all other first-class goods, are what we sell. Kind and courteous treatment and honorable dealing our motto. On these bases, we solicit an order, feeling sure that if we sell you one bill of goods you will be our customer in the future.

PROGRESSIVE BEE-KEEPER, 50c per year. "Amateur Bee-Keeper," 25c. Both for 65c. postpaid. Sample copy of the PROGRESSIVE free, and a beautiful Catalog for the asking.

Address, **Leahy Manufacturing Company, Higginsville, Mo., or**
1730 South 13th St., Omaha, Neb.

Please mention Bee Journal when writing.

See Honey Offer on page 698.

found this a pleasing task by using the Heddon method of transferring. In the operation I increased to 53 colonies.

Wishing to Italianize, and also to test the merits of the leading strains of Italians, I introduced queens in the poorer colonies from 12 of the leading queen breeders of the United States. Next year I intend to continue to Italianize from the strain selected as the best in the points that go to make up a superior strain of Italians.

I find the apiary furnishes a pleasant occupation and a fascinating study. I intend to be a constant reader of the American Bee Journal. **DAVID M. KITE.**

Ray Co., Mo., Oct. 21.

Poor Honey Crop.

The honey crop here has been a poor one. Clover was very plentiful, but the bees did not work on it. The fall flow from aster was very good for about two weeks, then bad weather set in. But the bees gathered enough for winter stores. **C. H. MAY.**

Page Co., Va., Oct. 31.

Fairly Good Year for Bees.

This has been a fairly good year regardless of the backward spring. Some colonies stored 125 pounds of comb honey; my 28 colonies averaged over 70 pounds of nice comb honey. **W. H. POTTS.**

Mason Co., Ill., Oct. 23.

Pretty Light Honey Crop.

I know that I should feel lost without the American Bee Journal. I have 105 colonies in fine condition for winter quarters. I am building a new cellar for them. My honey crop was pretty light this season, with quite a batch of dark, but no light to speak of, as the white clover and basswood failed here. **G. H. LINCOLN.**

Clark Co., Wis., Oct. 20.

Another Poor Year.

The past season was a very poor one for honey in this county. I have 25 very strong colonies of three-banded Italians, and they are well stored with honey for winter, gathered from the fall flow, but not one pound of super honey did I take during the whole season. Another poor year. The cause of it was too much rain in blossoming time. **ELISHA CAREY.**

Bucks Co., Pa., Oct. 14.

Success of an Amateur.

The past was not such a very bad season, for with two colonies I have taken 106 pounds of comb honey and 27 pounds of extracted, besides increasing to four colonies, which I think is pretty well for an amateur who had only the help of the American Bee Journal. **GEO. P. FRANKARD.**

Bergen Co., N. J., Oct. 15.

Clover Looks Well.

We are having lots of rain, and clover looks well, so we may have a good season next year. Our honey crop was a very small one this year—about 100 pounds from about 200 colonies. **ARTHUR STANLEY.**

Lee Co., Ill., Oct. 25.

Tall Plain Sections and Fences.

The honey crop in this section of the State was only about $\frac{1}{4}$ of a crop, and that of a very dark and inferior grade. Bees are generally in good condition for wintering. The young white clover is looking very promising.

We tried four supers of the plain section and fence separators 4x5x $\frac{3}{4}$, and are highly pleased with them. The sections were well filled out, even and beautiful. We will use more in the future. There has been some doubts about them bearing transportation, but I find they are less likely to get injured

in shipping than the common sections. They are much more easily manipulated.

I have 16 colonies, very strong (and from 40 to 50 pounds of honey in each hive,) all packed away on the summer stands for winter.

R. B. WOODWARD, M. D.
Perry Co., Ohio, Oct. 20.

About One-Third of a Crop.

The early part of the past season was very poor for bees—rainy and cool weather—and bees starving just before white clover came into bloom. Some of my colonies did not recover in time to store any in the sections. The strong colonies did very well, and my average was about one-third of a crop of fall honey. I sell all of my honey in the home market.

I could not get along without the bee-papers. I often find one article worth the year's subscription.

JAMES IVES.
Burlington Co., N. J., Oct. 24.

Bees Did Very Well.

My bees did very well this year, as they averaged 50 pounds a colony.

D. B. ABBOTT.
Osage Co., Kan., Oct. 24.

A Good Report.

Last spring I had left 17 colonies, and increased to 34. The honey crop in this part of the country was very good. I got 1,000 pounds of extracted honey, making an average of nearly 60 pounds per colony, spring count, which I sold in the home market readily at 10 cents a pound. I think that is pretty good for a second year's trial of selling honey.

A neighbor of mine, who is an experienced bee-keeper, started with 115 colonies last spring, and at the close of the harvest told me he harvested 10,000 pounds, which he is also trying to dispose of in the home market, at 10 cents a pound. Now if every bee-keeper would try to do that, the large city markets would not be crowded with honey.

C. H. VOIGT.
Kewaunee Co., Wis., Oct. 17.

Poor Season for Bees.

This has been a poor season for bees here. Early in the season they laid by stores in the brood-chamber; dry weather commenced in July, and has continued until October. I started with 28 colonies, and doubled the number during swarming season. The new swarms did not all store honey enough for winter, and most of them will die unless fed. My neighbors have fared no better.

A. J. CUSHING.
Dunn Co., Wis., Oct. 12.

Anti-Bee Space Again.

Good for Doolittle and Aikin. When they agreed in their discussion that the movable frames in bee-hives "are of no use to the bees, and are of no use to the bee-keeper who never lifts them out of the hives," they hit the truth exactly. And I esteem it as virtually saying the same thing of the bee-space. I have admitted its convenience first, last, and all the time for the bee-master in a warm climate where the winters are mild, and the bees are kept in cellars till warm weather comes again; but I should consider that the large bee-keepers who count their colonies by the hundred or thousand, are of a number that would make a very small percentage of the vast army who leave their bees on the summer stands through the severe season. And why should we labor, and indulge in ill humors to keep the multitude in ignorance of what would be better for them, because a few others have a right to prefer a more costly convenience? That invective fellow who said that Mr. Chrysostom "could hardly be worthy of much notice" because he praised the anti-bee-space hive should be informed by some cool-headed friend that resorting to insult never gives weight to argument with the sensible reader. The box-hive, and the frames with close-fitting

Sweet Clover

And Several Other Clover Seeds.

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Sweet Clover	.60	\$1.00	\$2.25	\$4.00
Alsike Clover	.70	1.25	3.00	5.75
White Clover	.80	1.40	3.00	5.00
Alfalfa Clover	.60	1.00	2.25	4.00
Crimson Clover	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, wanted by freight.

Your orders are solicited.

GEORGE W. YORK & CO.,
118 Michigan Street, CHICAGO, ILL.



SEE THAT WINK!

Bee - Supplies! Root's GOODS at Root's Prices.

Pounder's Honey - Jars, and every thing used by bee-keepers. Prompt service, low freight rate. Cat-tree. Walter S. Pounder, 512 Mass. Ave., INDIANAPOLIS, INDIANA.

Please mention Bee Journal when writing.



Mascotte Incubator & Lumber Co., Box 11, Bedford, Ohio.

Please mention Bee Journal when writing.

BEE-KEEPERS! Let me send you my 64-page Catalog for 1898
J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.



MAKE 'EM LAY

double the eggs in the middle of the winter, when eggs are worth the most money. Hens do that when fed on green cut bone.

It's best prepared by
DANDY GREEN BONE CUTTERS.

Made with or without gear. Cut clean, fine and easy. Can't be choked. Largest line made. Ask for what you want. Catalogue and prices free.

Stratton & Osborne, Box 21, Erie, Pa.

42E3t Please mention the Bee Journal.

PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Sarpins Honey.

Being the cleanest is usually worked the quickest of any Foundation made

J. A. VAN DEUSEN,

Sole Manufacturer,
Sprout Brook Montgomery Co., N. Y.

Please mention Bee Journal when writing.



ONE MAN WITH THE UNION COMBINATION SAW

Can do the work of four men using hand tools, in Rippling, Cutting-off, Mitring, Rabbeting, Grooving, Gaining, Dadoing, Raising-up, Jointing Stuff, etc. Full Line of Foot and Hand Power Machinery Sold on Trial. Catalogue Free.

SENeca FALLS MFG. CO.,

46 Water St. SENECA FALLS, N. Y.
Please mention Bee Journal when writing.

ends in the common-sense hive (from which Mr. Chrysostom says he copied) both contain the snug principle of the hollow tree, where the All-wise God made the bees to live; and while we may modify and improve the receptacle, we can never do so safely by eliminating the principle of compactness in a cold climate.

If Mr. Chrysostom has worked wonders the past season with the common-sense principle, which he honors, while the world at large reports failure with the bees, is he not worthy of a respectful hearing? and the principle worthy of a fair investigation? "A word to the wise is sufficient."

"COMMON-SENSE BEE-KEEPING."

Pennsylvania.

Testing Honey—Apis Dorsata, Etc.

Mr. H. L. Miller asks if there is any way of testing honey to know if there is glucose in it? Well, my friend Vitzgall says there is a way. Put one tablespoonful of honey and three tablespoonfuls of alcohol in a glass, and shake it well. After awhile all will be dissolved, if it is pure honey; conifer honey shows something not dissolved, but honey adulterated with glucose shows a muddy, whitish sediment. Now please try and report.

I notice that Secretary Wilson expects to make an effort to introduce the giant East Indian honey-bee—*Apis dorsata*—from the Philippines to gather all the sweet juices in our red clover field. These bees are said to build combs five or six feet long (wired?) and four feet wide. Our standard is 4 1/4 inches. Manufacturers of bee-keepers' supplies may be a little puzzled about a handy 10-frame hive with such *dorsata* dimensions; but the bees are not here yet.

We ought to have the red clover with or without *Apis dorsata*. Let me suggest how without: Pastor Weygandt discovered that a strong queen can be secured by taking out the larvae from a queen-cell and putting in a larva from a worker-bee a few days younger. An older larva would give a weaker or feeblar queen; a younger one will improve the whole development, and should also improve the tongue. I would like to see Mr. Doolittle report on this question. Queen-rearing for red clover honey would mean an increased quantity, if not a better quality of honey. The finest honey is imported from Greece; it is honey gathered from roses. Why can we not have those roses here? Let somebody go for *Apis dorsata* and somebody else for roses. About sweetness and aroma there is nothing like "Rodomel;" it is the finest honey in the old part of our globe, and the new should have it.

J. VOLKERT.

Chesterfield Co., Va.

Colorado.—The Colorado State Bee Keepers' Association will hold their annual convention Nov. 30 and Dec. 1 and 2, 1898, in the State Capitol Building, Denver. The Horticulturists meet Nov. 28, 29 and 30, our first day being their last. This arrangement will give members of both a chance to attend the other's meeting and discuss common interests.

R. C. AIKIN, Pres., Loveland, Col.

F. RAUCHFUSS, Sec., Elyria, Col.

Ontario.—The annual meeting of the Ontario Bee-keepers' Association will be held in Guelph, Dec. 6, 7 and 8, 1898. Owing to the Guelph Fat Stock Show, the Guelph Poultry and Pet Stock Show, and the Experimental Union meeting on the same dates, there will be a large meeting of bee-keepers, and each association will be a help to the other, as many are interested in all the different meetings. All are cordially invited to attend the meetings.

W. COUSE, Sec.

Streetville, Ont.

Illinois.—The Illinois State Bee-keepers' Association will hold its 8th annual meeting at the State House in Springfield, Nov. 16 and 17, 1898. We will have the advantage of one fare and a third for the round trip—open rate—along with the Odd Fellows, whose meeting is the third Tuesday of November. Our Association has been petitioned by the Northern Illinois Bee-keepers' Association to take the proper steps to secure the same foul brood law for our State as that of Wisconsin. Excellent board is secured at 25 cents per meal and lodgings just as reasonable. The one dollar for membership fee also entitles you to the American Bee Journal for one year.

Bradfordton, Ill. JAS. A. STONE, Sec.

BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,
Chicago, Ills.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 24 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, \$1.00.

Langstroth on the Honey-Bee, revised by Dadant.—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages; bound in cloth. Price, postpaid, \$1.25.

Bee-Keepers' Guide, or Manual of the Apiary, by Prof. A. J. Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 400 pages; bound in cloth and fully illustrated. Price, postpaid, \$1.25.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, \$1.00.

A B C of Bee-Culture, by A. I. Root.—A cyclopedia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners. Bound in cloth. Price, \$1.25.

Advanced Bee-Culture, Its Methods and Management, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 88 pages, bound in paper, and illustrated. Price, 50 cts.

Rational Bee-Keeping, by Dr. John Dzierzon.—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in paper covers. \$1.00.

Bienen-Kultur, by Thomas G. Newman.—This is a German translation of the principal portion of the book called **BEES OF HONEY**. 10. page pamphlet. Price, 40 cents.

Bienenzucht und Honiggewinnung, nach der neuesten methode (German) by J. F. Eggers.—This book gives the latest, most approved methods of bee-keeping, in an easy, comprehensive style with illustrations to suit the subject. 50 pages, board cover. Price, 50c.

Bee-Keeping for Beginners, by Dr. J. P. H. Brown, of Georgia.—A practical and condensed treatise on the honey-bee, giving the best modes of management in order to secure the most profit. 110 pages, bound in paper. Price, 50 cents.

Bee-Keeping for Profit, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p., illustrated. 25c.

Convention Hand-Book, for Bee-Keepers.—Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

Practical Hints to Bee-Keepers—by CHAS. F. MUTH. Also contains a Foul Brood Cure and How to Winter Bees. 40 p.; 10 cts.

Apiary Register, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, \$1.00; for 100 colonies, \$1.25.

Preparation of Honey for the Market, including the production and care of comb and extracted honey. A chapter from **BEES AND HONEY**. Price, 10 cents.

Bee-Pasturage a Necessity.—This book suggests what and how to plant. It is a chapter from **BEES AND HONEY**. Price, 10 cents.

Dr. Howard's Book on Foul Brood.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

Winter Problem in Bee-Keeping, by G. R. Pierce. Result of 25 years' experience. 30 cts.

Foul Brood Treatment, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

Foul Brood, by A. R. Kohnke.—Origin, Development and Cure. Price 10 cts.

Hand-Book of Health, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

Honey as Food is a neat little 24-page pamphlet especially gotten up with a view to creating a demand for honey among should-be consumers. The forepart of the pamphlet was written by Dr. C. C. Miller, and is devoted to general information concerning honey. The latter part consists of recipes for use in cooking and as a medicine. It will be found to be a very effective helper in working up a home market for honey. We furnish them, postpaid, at these prices: A sample for a stamp; 25 copies for 30 cents; 50 for 50 cents; 100 for 90 cents; 250 for \$2.00; 500 for \$3.50. For 25 cents extra we will print your name and address on the front page, when ordering 100 or more copies at these prices.

Commercial Calculator, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

Green's Four Books, by Chas. A. Green.—Devoted to, 1st. How We Made the Old Farm Pay; 2nd. Peach Culture; 3rd. How to Propagate Fruit-Plants, Vines and Trees; 4th. General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

Garden and Orchard, by Chas. A. Green.—Gives full instructions in thinning and Marketing Fruit; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

The Hive I Use, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

Kendall's Horse-Book.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

Silo and Silage, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

Lumber and Log-Book.—Gives measurements of lumber, logs, planks, wages, etc. 25c.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

Grain Tables, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

Capon and Caponizing, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls, by Fanny Field.—Everything about Poultry Diseases and their Cures. 64 pages. Price, 30 cts.

Poultry for Market and Poultry for Profit, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

Turkeys for Market and Turkeys for Profit, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

Rural Life.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

Potato Culture, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only one book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted, see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1. Langstroth on the Honey-Bee.....	\$2.00
2. A B C of Bee-Culture.....	2.00
3. Bee-Keepers' Guide.....	1.75
4. Bees and Honey [Cloth bound].....	1.65
5. Doolittle's Scientific Queen-Rearing.....	1.75
6. Dr. Howard's Foul Brood Book.....	1.10
7. Advanced Bee-Culture.....	1.30
8. Bienen-Kultur [German].....	1.20
9. Rational Bee-Keeping [Paper bound].....	1.75
10. Bee-Keeping for Profit.....	1.15
11. Convention Hand-Book.....	1.15
12. Poultry for Market and Profit.....	1.10
13. Turkeys for Market and Profit.....	1.10
14. Capons and Caponizing.....	1.10
15. Our Poultry Doctor.....	1.10
16. Green's Four Books.....	1.15
17. Garden and Orchard.....	1.15
18. Rural Life.....	1.10
19. Commercial Calculator, No. 1.....	1.25
20. Commercial Calculator, No. 2.....	1.40
21. Kendall's Horse-Book.....	1.10
22. Potato Culture.....	1.20
23. Hand-Book of Health.....	1.10
24. Maple Sugar and the Sugar Bush.....	1.20
25. Silo and Silage.....	1.10
26. Winter Problem in Bee-Keeping.....	1.30
27. Apiary Register (for 50 colonies).....	1.75
28. Apiary Register (for 100 colonies).....	2.00

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Oct. 18.—Fancy grades of white comb honey sell freely at 13c, with good grades from 11 to 12½c, according to finish; ambers bring 8 to 10c, with dark mixt and unclean, 7 to 8c. Extracted, white, 6 to 7c; ambers, 5 to 6c; buckwheat, 5c. Beeswax, 26 to 27c.

The market is active and nearly all consignments are sold soon after arrival.

R. A. BURNETT & CO.

San Francisco, Oct. 19.—White comb, 9½ to 10½c; amber, 7½ to 9c. Extracted, white, 6½ to 7½c; light amber, 6 to 6½c. Beeswax, 24 to 27c.

There are no changes to record in quotations, but market is firm at the ruling figures. Stocks are light, particularly of choice extracted. A shipment of 309 cases went forward the past week by sailing vessel for Liverpool.

St. Louis, Sept. 9.—Fancy white comb, 12 to 12½c; A No. 1 white, 10 to 11c; No. 1 white, 8 to 10c; dark and partially-filled from 5 to 8c, as to quality. Extracted in cases, No. 1 white, 6 to 6½c; No. 2, 5½c; amber, 5c; in barrels, No. 1 white, 5½c; amber, 4½ to 5c; dark, 4 to 4½c. Choice Beeswax, prime, 24c; choice, 24½c. At present there is a good demand for honey.

WESTCOTT & CO.

Kansas City, Sept. 8.—Fancy white comb, 12 to 13c; No. 1, 11 to 12c; amber, 10 to 11c. Extracted, white, 5½ to 6c; amber, 5 to 5½c; dark, 4½ to 5c. Beeswax, 22 to 25c.

The receipts of comb honey are larger.

O. C. ULEMONS & CO.

Boston, Sept. 30.—Our honey market shows a decided firmer tone since our last. A few sales have been made at 15c for an extra fancy lot, while almost all sales ranging from A No. 1 to fancy now are made at 14c, while occasionally, something a little off, will bring as low as 12½ to 13c. We do not look to see any lower prices.

Extracted, Florida, in barrels, mostly 6c to 7c, with a good demand. Beeswax, slow sale at 26c for best.

BLAKE, SCOTT & LEE.

Indianapolis, Oct. 3.—Fancy white comb honey, 12 to 12½c; No. 1, 10 to 11c. Demand fairly good. Tar-colored comb honey, 8 to 9c, with almost no demand. Clover and baswood extracted honey, 6½ to 7c. Beeswax, 25 to 27c.

WALTER S. POWDER.

Milwaukee, Oct. 18.—Fancy 1 pounds, 12½ to 13c; A No. 1, 12 to 12½c; No. 1, 11 to 12c; No. 2, 10 to 10½c; mixt, amber and dark, 8 to 9c. Extracted, white, in barrels, kegs and pails, 6½ to 7c; dark, 5 to 5½c. Beeswax, 26 to 27c.

This market is in good condition for the best grades of honey, either comb or extracted. The receipts of the new crop are very fair, and some of very nice quality. The demand has been and continues to be very good, and values are firm on fancy grades and straight, uniform packing.

A. V. BISHOP & CO.

Buffalo, Oct. 20.—This market is much improved in demand on all grades. Strictly fancy 1-pound comb, 13 to 14c; No. 1, 11 to 12c; dark, etc., 7 to 9c. Fancy extracted, 5 to 6c; dark, 4 to 4½c. Fancy beeswax, 27 to 28c; poor, etc., 20 to 25c.

BATTERSON & CO.

Columbus, O., Oct. 29.—Fancy, 14 to 15c; No. 1, 12 to 13c; No. 2, 10 to 11c; amber, 9 to 10c. Receipts somewhat heavier, but demand improves as weather gets colder.

COLUMBUS COM. AND STORAGE CO.

New York, Oct. 22.—Receipts of comb honey are large, and there is quite a stock now on the market. While white is in good demand, buckwheat and mixt seem to be somewhat neglected, and quotation prices have to be shaded in order to sell in quantity lots. We quote:

Fancy white, 13 to 14c; No. 1 white, 11 to 12c; amber, 10c; mixt and buckwheat, 8 to 9c. Stocks of extracted are light of all kinds. Demand is good at following prices: White, 6 to 6½c; amber, 5½c; dark, 5c. Southern, in half barrels and barrels at from 55c to 60c a gallon. Beeswax dull at 26c.

HILDRETH BROS. & SGOELKEN.

Detroit, Oct. 20.—Honey in better demand and better prices as follows: Fancy white, 13 to 14c; No. 1, 12 to 13c; fancy dark and amber, 10 to 11c. Extracted, white, 6 to 7c; dark, 5 to 5½c. Beeswax, 25 to 26c.

M. H. HUNT.

Cleveland, Oct. 27.—Fancy white, 13 to 14c; No. 1 white, 12 to 12½c; light amber, 11c; buckwheat, 9c. Extracted, white, 7c; light amber, 6c.

A. B. WILLIAMS & CO.

The Usual Fall Discount *****

Is Now Allowed on Orders.
If you want

Shipping Cases, Crates,
Extractors,

Or anything else, write to us. Catalog
Free. Sample Copy

American Bee-Keeper,
(Monthly, 50c a year) FREE. Address,

THE W. T. FALCONER MFG. COMPANY
JAMESTOWN, N. Y.

Please mention Bee Journal when writing.

Apiarian Supplies!

Wholesale and Retail.

A FULL LINE KEPT IN STOCK
Very Low Prices.

Write for an estimate on what you want.

I. J. STRINGHAM,
105 Park Place, - NEW YORK.
Please mention Bee Journal when writing.

CARLOADS—



Of Bee-Hives, Sections, Ship-
ping-Cases, Comb Foundation,
and Everything used in the
Bee-Industry.

We want the name and ad-
dress of every Bee-Keeper in
America. We supply Deal-
ers as well as consumers. We
have Dry Kiln, Improved Machinery, 40,000
feet of floor space, and all modern appliances.
We make prompt shipment.
Write for Catalogs, Quotations, etc.

Inter-State Manufacturing Co.,
HUDSON, St. Croix Co., WIS.

IF YOU WANT THE —BEE-BOOK

That covers the whole Apicultural Field more
completely than any other published, send
\$1.25 to Prof. A. J. Cook, Claremont, Calif.,
for his

Bee-Keeper's Guide.

Liberal Discounts to the Trade.

California ***

If you care to know of its Fruits, Flowers
Climate or Resources, send for a Sample Copy
of California's Favorite Paper—

The Pacific Rural Press

The leading Horticultural and Agricultural
paper of the Pacific Coast. Published weekly.
handsomely illustrated \$2.00 per annum
Sample Copy Free.

PACIFIC RURAL PRESS,
330 Market St., - SAN FRANCISCO, CAL.

FREE FOR A MONTH.

If you are interested in sheep in any way
you cannot afford to be without the best
and only weekly sheep paper published in
the United States.

WOOL MARKETS AND SHEEP ***

has a hobby which is the sheep breeder and
his industry, first foremost and all the
time. Are you interested? Write to-day.
Wool Markets & Sheep, - - Chicago.

21st Year Dadant's Foundation. 21st Year

Why does it sell so Well?

Because it has always given better satis-
faction than any other.
Because **IN 21 YEARS** there have
not been any complaints, but thou-
sands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty,
Purity, Firmness, No Sag-
ging. No Loss.**
**PATENT WEED PROCESS
SHEETING.**

Send Name for our Catalog, Samples of Foundation and Veil Material. We sell
the best VEILS, cotton or silk.

BEE-KEEPERS' SUPPLIES OF ALL KINDS.

LANGSTROTH ON THE HONEY-BEE, Revised.
The Classic in Bee-Culture—Price, \$1.25, by mail.

BEESWAX WANTED AT ALL TIMES.

CHAS. DADANT & SON,

Please mention the Am. Bee Journal. **HAMILTON, Hancock Co., ILL.**

OUR MOTTO—"Well Manufactured Stock! Quick Shipments!"

SECTIONS, SHIPPING-CASES, —AND— BEE-KEEPERS' SUPPLIES.

We make a specialty of making the very best Sections on the market.
The **BASSWOOD** in this part of Wisconsin is acknowledged by all to be the
best for making the **One-Piece Honey-Sections**—selected, young, and
thrifty timber is used.

Write for Illustrated Catalog and Price-List FREE.

MARSHFIELD MFG. CO., Marshfield, Wis.

Please mention the American Bee Journal when writing.

ROOT'S GOODS.

Our Specialties:

The Fence and Plain Sections.
Weed New Process Foundation.
Cowan Extractors.
Porter Bee-Escapes—the best made.
Dovetailed Hives—with Danz. Patented Cover and Bottom.
Danzenbaker Hives.
No-Drip Shipping-Cases.
Gleanings in Bee-Culture. Illustrated, Semi-Monthly.

Catalog of Goods and Sample Copy of Gleanings
sent for your name on a postal.

THE A. I. ROOT CO.

Branch Offices: **MEDINA, OHIO.**

118 Michigan Street, Chicago, Ill.
1024 Mississippi Street, St. Paul, Minn.
1635 W. Genesee St., Syracuse, N. Y.
10 Vine Street, Philadelphia, Pa.
Mechanic Falls, Me.